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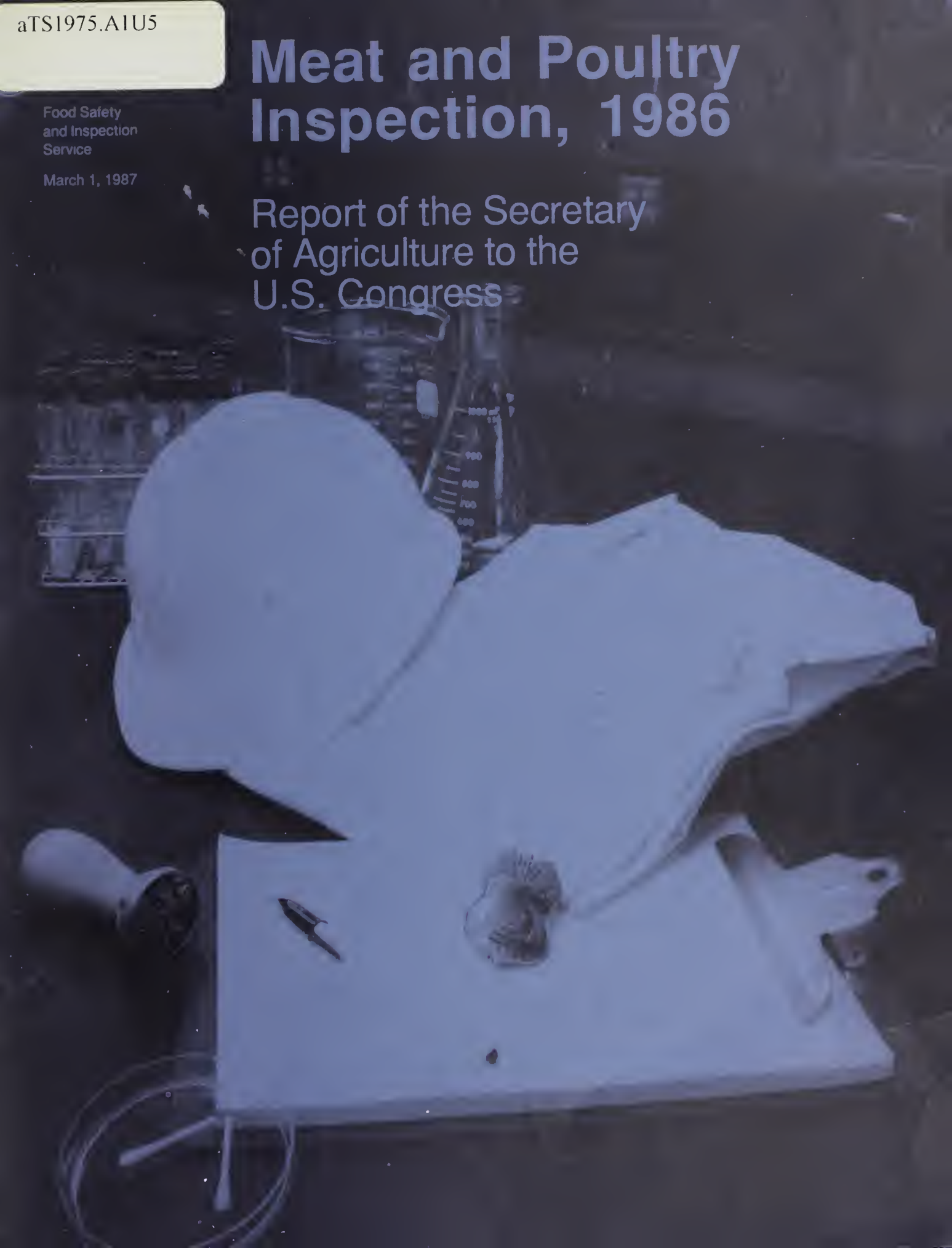


Food Safety
and Inspection
Service

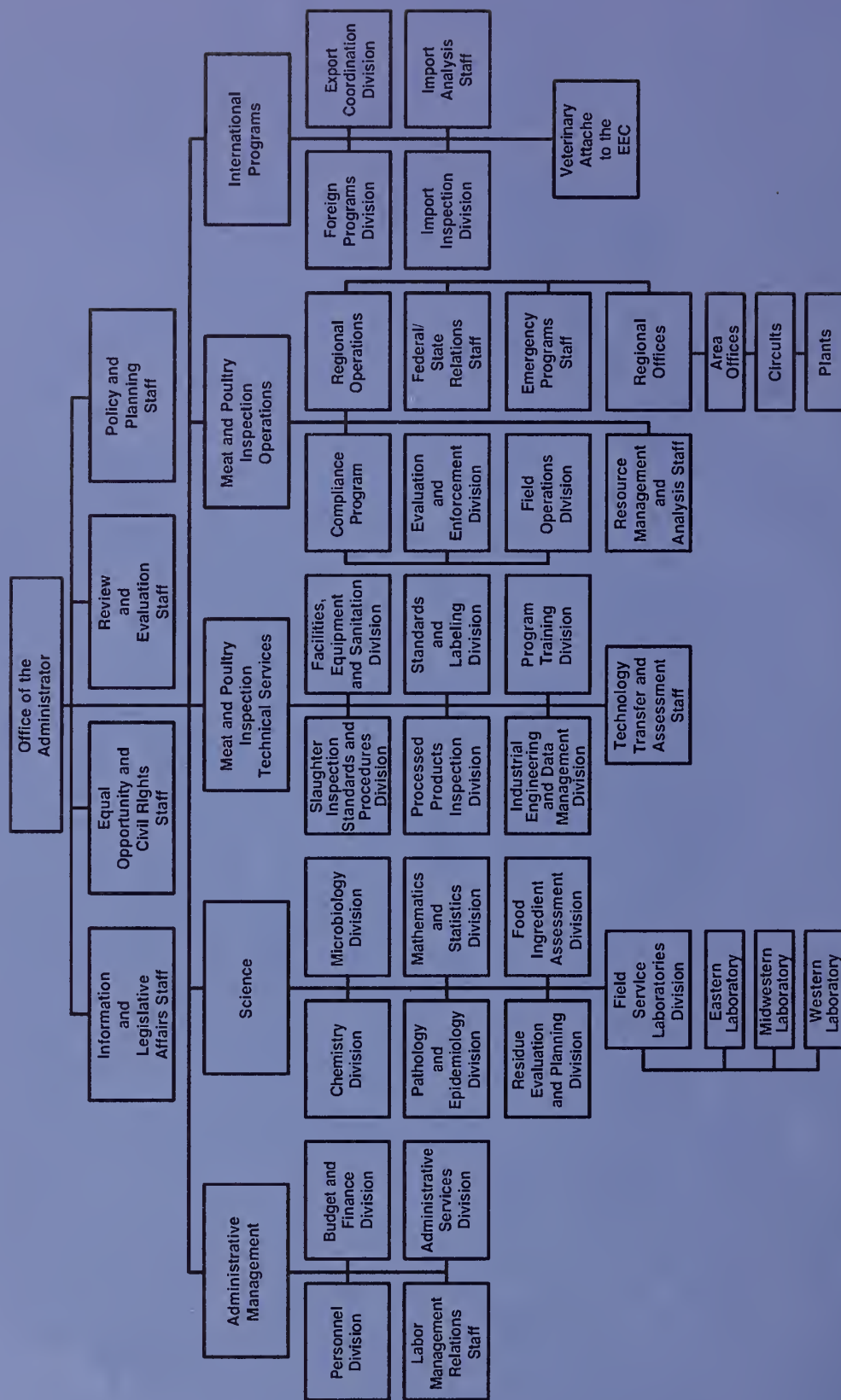
March 1, 1987

Meat and Poultry Inspection, 1986

Report of the Secretary
of Agriculture to the
U.S. Congress



Food Safety and Inspection Service Organizational Structure



Preface

The Food Safety and Inspection Service (FSIS) of the U.S. Department of Agriculture (USDA) is responsible for administering a comprehensive system of inspection laws. In carrying out its mission, FSIS strives to maintain a safe, wholesome, and accurately labeled food supply at the least possible cost to the American taxpayer. The Agency's actions and accomplishments during 1986 reflect its commitment to that goal.

This report summarizes domestic meat and poultry inspection, foreign inspection program review, and related FSIS activities during the past year. Information about domestic inspection is presented on a fiscal year basis to complement the congressional budget process. Information on review of foreign inspection systems is presented on a calendar year basis, as required by law.

Part 1 of this report describes FSIS and its responsibilities. It also describes the organizational units involved in meat and poultry inspection and related functions, and it shows the interdependence of these units.

Part 2 statistically summarizes domestic inspection and related activities for fiscal year 1986 (October 1, 1985, through September 30, 1986).

Part 3 statistically summarizes FSIS review of foreign inspection systems and related activities for calendar year 1986. Foreign Plants Certified to Export Meat to the United States is presented to Congress as an addendum to this publication. It is available from FSIS upon request.

Part 4 of the report describes Agency actions to improve the efficiency and effectiveness of inspection and related functions, and actions on issues of public concern.

Readers may also wish to examine the Food Safety and Inspection Service Program Plan for Fiscal Year 1987. Please request it from the Policy and Planning Staff, Food Safety and Inspection Service, U.S. Department of Agriculture, Room 105 Annex, Washington, DC 20250.

Questions about this report or about FSIS may be directed to the Food Safety and Inspection Service, U.S. Department of Agriculture, Washington, DC 20250.

This annual report to the Committee on Agriculture of the U.S. House of Representatives and to the Committee on Agriculture, Nutrition, and Forestry of the U.S. Senate is submitted as required by sections 301(c)(4) and 20(e) of the Federal Meat Inspection Act, as amended (21 U.S.C. 661 and 21 U.S.C. 620); and sections 27 and 5(c)(4) of the Poultry Products Inspection Act, as amended (21 U.S.C. 470 and 21 U.S.C. 454).

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Organization and Responsibilities: Food Safety and Inspection Service

The Food Safety and Inspection Service (FSIS) of the U.S. Department of Agriculture (USDA) assures that meat and poultry products moving in interstate and foreign commerce for use as human food are safe, wholesome, and accurately labeled.

Of the Agency's five major programs, four are directly involved in inspection and supportive activities: Meat and Poultry Inspection Operations, Meat and Poultry Inspection Technical Services, Science, and International Programs. The fifth program, Administrative Management, oversees budget and finance, personnel, administrative, and labor-management relations functions. Each program is headed by a Deputy Administrator who reports to the Administrator of FSIS.

FSIS carries out USDA's responsibilities under the authority of the Federal Meat Inspection Act and the Poultry Products Inspection Act. These laws protect consumers by assuring that meat and poultry products are wholesome, unadulterated, and properly marked, labeled, and packaged. The laws also protect packers by ensuring that no one gains an unfair economic advantage by putting unwholesome or misbranded products on the market.

FSIS interacts with other agencies within USDA, such as the Agricultural Research Service, the Agricultural Marketing Service, the Animal and Plant Health Inspection Service, the Economic Research Service, and the National Agricultural Statistics Service. FSIS also maintains relationships with other Federal agencies that assure food safety, notably the Food and Drug Administration (FDA) and the Environmental Protection Agency (EPA).

Meat and Poultry Inspection Operations

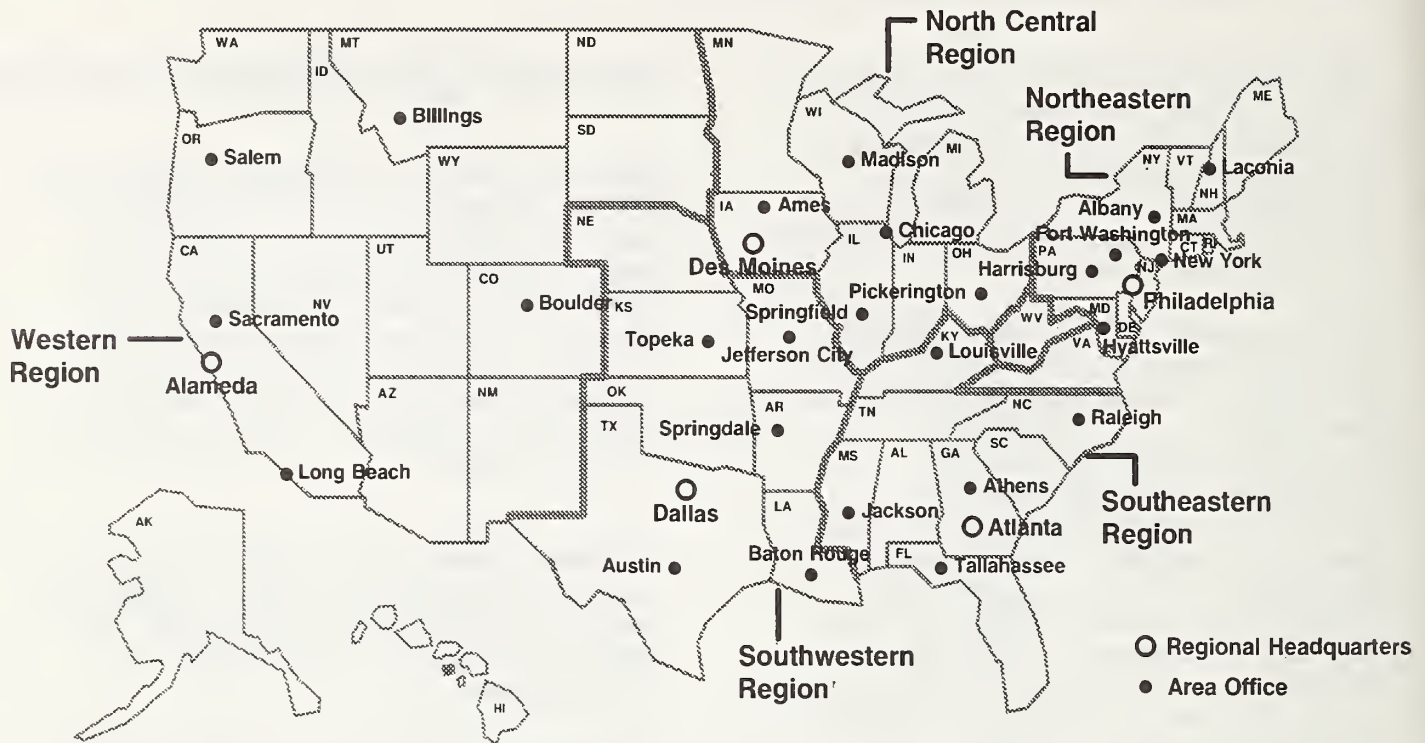
Meat and Poultry Inspection Operations (MPIO) encompasses the FSIS divisions that provide inspection in domestic meat and poultry plants, direct the Agency's compliance activities, and oversee the Federal-State cooperative inspection program. Only federally inspected meat and poultry plants may sell their products in interstate and foreign commerce.

REGIONAL OPERATIONS of MPIO oversees approximately 8,000 Federal inspectors and veterinarians in plants that sell meat and poultry in interstate and foreign commerce.

Inspection activities are carried out by a network of five regional offices, area offices, and inspection circuits. Each region is managed by a regional director who reports to Regional Operations. Each region, as shown in figure 1, consists of five to six subordinate area offices, each managed by an area supervisor who reports to a regional director. Each area includes several inspection circuits, each managed by a circuit supervisor who supervises inspectors-in-charge of the plants within that circuit. Inspectors-in-charge supervise in-plant inspectors.

The majority of the inspection workload is borne by field employees--the workforce of food inspectors and veterinarians who actually perform inspection in meat and poultry slaughtering and processing plants.

Figure 1: Meat and Poultry Inspection Regions and Area Offices



Note: Area Office in Tallahassee, Florida services Puerto Rico and the U.S. Virgin Islands. Area Office in Salem, Oregon services Alaska. Area Office in Long Beach, California services Hawaii, Guam and American Samoa.

The **Emergency Programs Staff** of Regional Operations coordinates FSIS actions in response to residue, microbiological, and other contamination problems. When appropriate, this staff seeks voluntary company recall of products suspected of being adulterated or misbranded.

The **Federal-State Relations Staff** of Regional Operations assures that State inspection programs enforce requirements at least equal to those of the Federal inspection laws. State-inspected plants may sell their products only within the State. This staff also gives technical assistance to plants operating under the Talmadge-Aiken Act.

The **COMPLIANCE PROGRAM** of MPIO provides primary regulatory control over businesses engaged in transporting, storing, and

distributing meat and poultry products after they leave federally inspected establishments. The unit investigates violations of the inspection laws; controls violative products through detentions, civil seizures, and voluntary recalls; and helps assure that appropriate criminal, administrative, and civil sanctions are carried out. The Compliance Program has an Evaluation and Enforcement Division and a Field Operations Division.

In addition, the Resource Management and Analysis Staff provides analytical and administrative management support for MPIO.

Meat and Poultry Inspection Technical Services

Meat and Poultry Inspection Technical Services (MPITS) performs much of the developmental and experimental work

that serves as the basis for refining and modernizing inspection standards and procedures.

The Facilities, Equipment, and Sanitation Division of MPITS develops standards for plant facilities, equipment, and sanitation programs to help assure sanitary and wholesome products. This division also approves drawings of and specifications for meat and poultry facilities and equipment before they are used in federally inspected plants.

The Industrial Engineering and Data Management Division conducts work measurement studies used in the development of more efficient inspection methods and workplace design, and in determining staffing needs. This division also develops and manages Agency automated information systems, and it operates the FSIS computer facilities.

The Processed Products Inspection Division establishes industry operating requirements and inspection procedures for ensuring that processed meat and poultry products are safe, wholesome, and unadulterated.

The Slaughter Inspection Standards and Procedures Division develops regulations and standards for use in plants slaughtering meat animals and poultry. This division designs, tests, and helps implement efficient, cost-effective procedures for the ante-mortem and post-mortem inspection of animals.

The Program Training Division plans and develops all technical training policies, programs, and activities for FSIS. Technical training is conducted on the job and at the Fort Worth, TX, Training Center.

The Standards and Labeling Division reviews and approves labels for federally inspected domestic and imported meat and poultry products. This division develops formal product

standards of identity and composition and determines that ingredients are safe and appropriate for the products in which they are used.

The Technology Transfer and Assessment Staff gathers and evaluates information on emerging scientific, technological, and industrial research from a network of U.S. and international sources. This staff assesses research findings and transfers selected information to the appropriate FSIS programs.

In addition, the **Program Services Staff** provides administrative management support to MPITS.

International Programs

International Programs (IP) carries out requirements of the Federal meat and poultry inspection laws to assure the wholesomeness of imported meat and poultry products. It does so by: (1) reviewing foreign inspection systems to assure that they are equal to the U.S. system; (2) conducting reinspection of imported meat and poultry products entering U.S. commerce; (3) representing U.S. interests throughout the world to minimize regulatory impediments to trade in meat and poultry products; and (4) coordinating the inspection and certification of meat and poultry products for export into foreign commerce.

IP handles liaison activities with other Federal agencies involved in international policy development, and with industry representatives involved in domestic and international trade in meat and poultry products.

The Foreign Programs Division is responsible for assuring that meat and poultry imports are produced under inspection systems that are at least equal to that of the United States and that the products meet U.S. requirements. (See tables 17 through 20.) This is accomplished by regularly evaluating the effectiveness

of each eligible foreign inspection system to control product in the following risk areas: disease, residues, contamination, processing and economic fraud/compliance. The frequency of the evaluations is determined by prior history, product diversity, system complexity, and risk area evaluations.

The Foreign Programs Division staff evaluated the effectiveness of 33 eligible systems through reviews of 1,658 production and storage facilities, 128 laboratories, and numerous other operating environments such as ports of loading, research facilities, and training programs. The data from reviews are reported in Foreign Plants Certified to Export Meat to the United States, which is printed as an addendum to this report.

The **Import Inspection Division** is responsible for assuring that imported meat and poultry products are properly certified as meeting U.S. standards when presented at port of entry for reinspection. (See tables 21 through 22.) A computer-assisted system guides the sampling of imported product for reinspection. Data from reinspection direct subsequent sampling of product from the producing country and establishment. These data also guide the evaluation action of Foreign Programs Division. A product that does not meet U.S. requirements is refused entry into this country. The product may be returned to the exporting country or destroyed.

The **Import Analysis Staff** manages information, policy development, regulations development, and data systems operations for International Programs and its divisions. The staff also oversees the operation, development, and maintenance of the Automated Import Information System and other computer-assisted systems within IP.

The **Export Coordination Division** facilitates the export of U.S. meat and poultry exports. This division

maintains liaison with over 70 foreign inspection programs. Division officials meet with foreign government officials about requirements that differ from those of the United States. The division also assists the U.S. meat and poultry industry in exporting to foreign markets by helping to resolve potential differences in the interpretation of requirements. It plans and coordinates reviews of U.S. plants by foreign officials.

The **Veterinary Attache** is responsible for the onsite presentation of the U.S. perspective and position on matters of mutual concern to USDA officials and those of the European Economic Community (EEC) and its member States. The Veterinary Attache is also responsible for communication to and from FSIS on export matters throughout Europe.

Science

The Science Program furnishes analytical support and scientific guidance to the meat and poultry inspection program. Science services are designed to assure that meat and poultry products are safe from disease, harmful chemicals, and toxins. In addition, laboratory analysis enables FSIS to detect insanitary preparation and economic adulteration (the substitution of cheaper or less desirable ingredients for those required).

Science cooperates with other Federal agencies (notably FDA, EPA, and the Centers for Disease Control), and with State and local health authorities, in carrying out its responsibilities. It develops and maintains close ties with national and international scientific communities in order to keep abreast of scientific and technological advances and to open new avenues for the exchange of scientific information.

The **Pathology and Epidemiology Division** of Science develops the pathology, epidemiology, and serology

programs that support meat and poultry inspection. This division provides laboratory and investigative services, studies infectious agents associated with food, and develops serological tests for infectious and toxic agents found in meat and poultry products. This division operates the Meatborne Hazard Control Center, which investigates reports of potential health hazards.

The **Chemistry Division** directs the development and improvement of practical analytical procedures for detecting adulterants and chemical residues in meat and poultry products. This division directs the performance of highly complex chemical analyses in field laboratories, coordinates an accredited laboratory program, and reviews chemistry field service laboratories to assure the quality and integrity of analytical results. In addition, the Chemistry Division is the Agency representative in evaluating New Animal Drug Applications (NADA) with FDA.

The **Microbiology Division** provides technical support to the FSIS meat and poultry inspection program and advises other Federal, State, and local agencies. This division develops economical and efficient analytical screening methods for use in laboratories, in plants, and on the farm. The Microbiology Division also plans and maintains a microbiological monitoring and surveillance program, and carries out special investigations on the safety and quality of products and processes.

In addition, the Science Administrative Staff provides administrative support for Science functions.

The **Residue Evaluation and Planning Division** provides planning for the FSIS role in controlling unacceptable levels of drug and chemical residues that may occur in meat and poultry products. The Division develops an annual residue plan for the monitoring and

surveillance sampling and testing of domestic and imported meat and poultry products. It also provides planning for residue avoidance programs involving producers and official establishments. Data from the National Residue Program are compiled, evaluated, and published annually.

The Field Service Laboratories

Division is a network of laboratories strategically located to provide analytical support to FSIS activities. The laboratories are located in Athens, GA; St. Louis, MO; and Alameda, CA. FSIS augments the analytical capacity of these laboratories by contracting with State and private laboratories.

The Food Ingredient Assessment

Division provides evaluative support, planning, and guidance in the scientific areas of nutrition and product safety. This division evaluates the chemical safety of packaging materials and chemical compounds.

The Mathematics and Statistics

Division provides mathematical and statistical support for the inspection program. This division summarizes and assists in the interpretation of data developed within the Agency, advising other staffs on the validity and application of statistical conclusions.

Units in the Office of the Administrator

The Policy and Planning Staff

facilitates the development and documentation of Agency policy, and it coordinates planning. This staff conducts studies for the Agency and for individual program offices; provides a variety of services to offices developing regulations; conducts regulation reviews; performs an Agency secretariat function, including providing Freedom of Information and central word processing services; provides staff support for the Agency's planning process; and coordinates FSIS emergency preparedness functions.

The Review and Evaluation Staff

monitors the effectiveness of FSIS inspection programs and carries out special studies and evaluations to improve program effectiveness. This staff also coordinates the risk assessment portion of FSIS' management control initiatives, and serves as audit liaison with the U.S. General Accounting Office and USDA's Office of the Inspector General.

The Equal Opportunity and Civil

Rights Staff provides support for administration of Titles VI and VII of the Civil Rights Act of 1964 and other applicable laws and regulations. The staff develops policies, evaluates program effectiveness, and assists in the achievement of FSIS objectives.

The Information and Legislative Affairs Staff

communicates with the public, Congress, other Government agencies, the media, and internal audiences about FSIS programs and activities. The staff helps form and implement a comprehensive public information and education program on issues such as food safety and labeling.

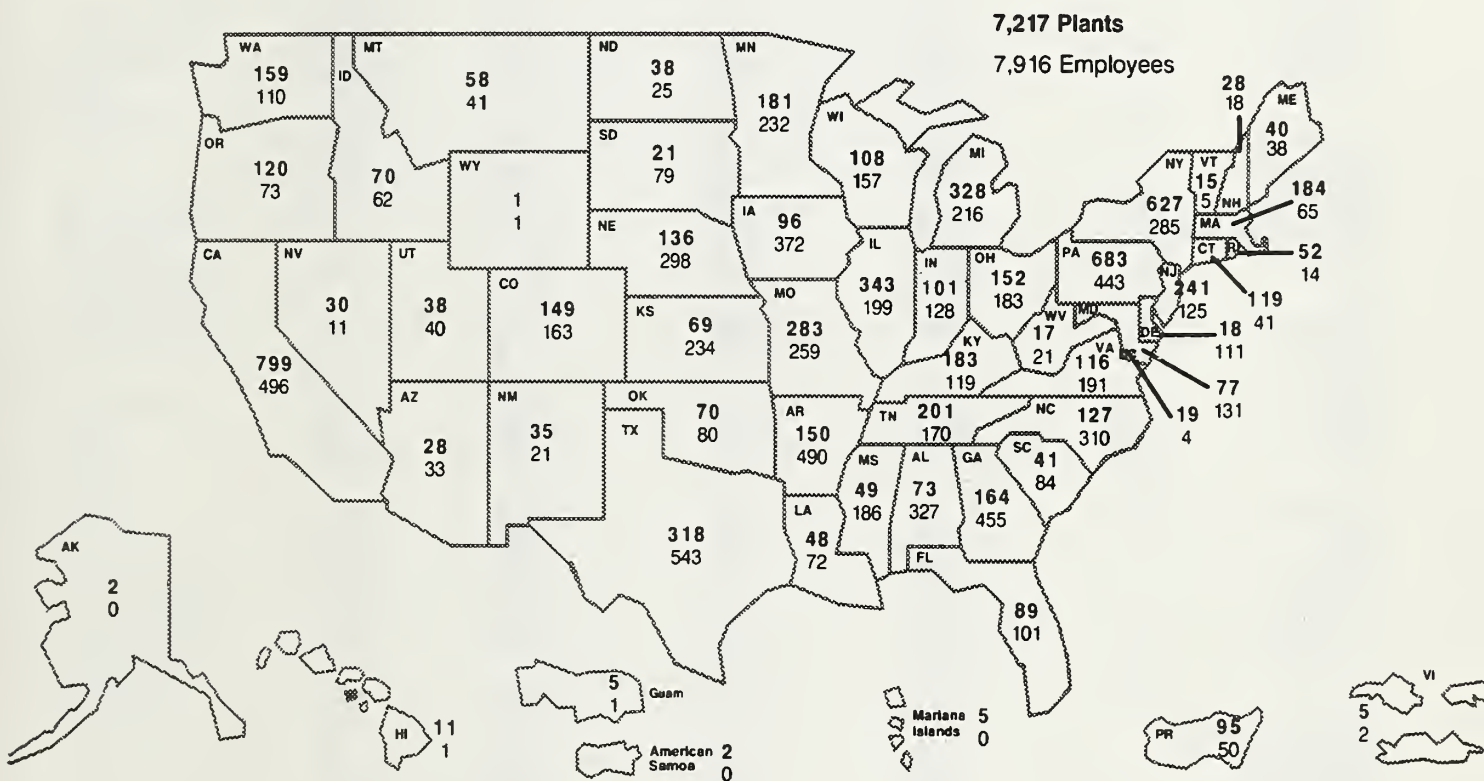
The staff operates the toll-free Meat and Poultry Hotline [1-800/535-4555; 447-3333 in the Washington, DC, metropolitan area]. It also develops and distributes written and audiovisual materials to a variety of audiences and serves as congressional liaison for the Agency.

Domestic and Export Inspection

Federally Inspected Plants and Inspectors. Figure 2 shows federally inspected plants and full-time permanent field personnel by location. The plant figures include USDA-staffed plants and Talmadge-Aiken plants, which are federally inspected but staffed by State employees. The plant figures do not include 198 official

import establishments. The field employee figures include all USDA field inspectors and field supervisory and support personnel. In addition, 88 inspectors (supported by 45 field personnel) examine meat and poultry imports at points of entry to the United States.

Figure 2: **Federally Inspected Plants and Inspectors by Location**
September 30, 1986



Federally Inspected Plants by State or Territory. Table 1 lists the number of federally inspected meat, poultry, and combination meat/poultry plants that operated under Federal

inspection in each State or U.S. territory as of September 30, 1986. In addition, imported meat and poultry products are examined at 198 official import establishments.

Table 1

State or territory	Meat plants	Poultry plants	Meat/poultry plants	Total
Alabama	17	28	16	61
American Samoa	1	--	1	2
Arizona	14	--	14	28
Arkansas	54	36	60	150
California	340	47	412	799
Colorado	82	6	61	149
Connecticut	65	6	48	119
Delaware	1	5	2	8
District of Columbia	9	4	6	19
Florida	36	8	42	86
Georgia	26	46	40	112
Guam	1	--	4	5
Hawaii	1	--	2	3
Idaho	29	--	41	70
Illinois	174	9	134	317
Indiana	44	13	38	95
Iowa	50	7	39	96
Kansas	36	1	32	69
Kentucky	106	5	72	183
Louisiana	24	4	16	44
Maine	13	2	25	40
Mariana Islands	2	--	3	5
Maryland	19	13	21	53
Massachusetts	92	17	75	184
Michigan	209	2	117	328

Table 1 (continued)

State or territory	Meat plants	Poultry plants	Meat/poultry plants	Total
Minnesota	53	15	113	181
Mississippi	5	19	8	32
Missouri	139	26	118	283
Montana	14	—	44	58
Nebraska	68	6	62	136
Nevada	7	3	20	30
New Hampshire	10	3	15	28
New Jersey	108	14	119	241
New Mexico	9	1	18	28
New York	314	33	280	627
North Carolina	29	22	24	75
North Dakota	24	—	14	38
Ohio	81	9	61	151
Oklahoma	22	3	24	49
Oregon	67	5	48	120
Pennsylvania	404	45	234	683
Puerto Rico	54	4	37	95
Rhode Island	28	6	18	52
South Carolina	15	9	17	41
South Dakota	13	3	5	21
Tennessee	104	11	86	201
Texas	116	13	155	284
Utah	9	4	20	33
Vermont	6	—	9	15
Virginia	28	13	31	72
Virgin Islands	2	—	3	5
Washington	76	9	74	159
West Virginia	7	2	8	17
Wisconsin	45	12	51	108
Wyoming	--	--	--	--
Subtotal	3,302	549	3,037	6,888
Talmadge\Aiken Plants	169	8	152	329
Total	3,471	557	3,189	7,217

Federally Inspected Plants. Table 2 presents the number of meat and poultry slaughtering and/or processing plants that operated under Federal inspection as of September 30, 1986.

Only federally inspected plants may sell their products in interstate or foreign commerce. Talmadge-Aiken plants are federally inspected, but staffed by State employees.

Table 2

Type of plant	Meat plants	Poultry plants	Meat/poultry plants	Total
Slaughtering	253	176	4	433
Processing	2,122	244	2,685	5,051
Slaughtering and processing	927	129	348	1,404
Subtotal	3,302	549	3,037	6,888
Talmadge-Aiken	169	8	152	329
Total	3,471	557	3,189	7,217

Livestock Federally Inspected.

Figure 3 and table 3 summarize the number of meat animals inspected at slaughter in federally inspected

plants in fiscal years 1984-86. The species listed are those legally classified as meat food animals under the Federal Meat Inspection Act.

Figure 3: Livestock Federally Inspected

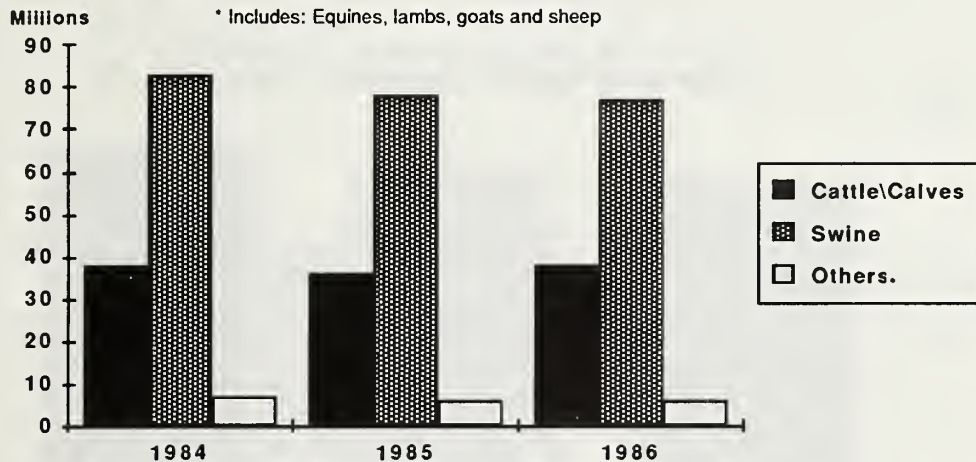


Table 3

Species	1984	1985	1986
Cattle	35,265,000	33,295,000	34,822,000
Calves	3,017,000	2,983,000	3,215,000
Swine	82,699,000	78,218,000	77,246,000
Goats	107,000	114,000	147,000
Sheep & lambs	6,434,000	5,826,000	5,411,000
Equines	131,000	143,000	171,000
Total	127,653,000	120,579,000	121,012,000

Poultry Federally Inspected. Figure 4 and table 4 summarize the number of poultry inspected at slaughter in federally inspected plants in fiscal years 1984-86. The species listed are legally classified as poultry for food purposes by the Poultry Products

Inspection Act, except for the category "Other." That category includes rabbits and poultry species inspected under voluntary inspection programs. USDA is reimbursed for the costs of such voluntary inspection.

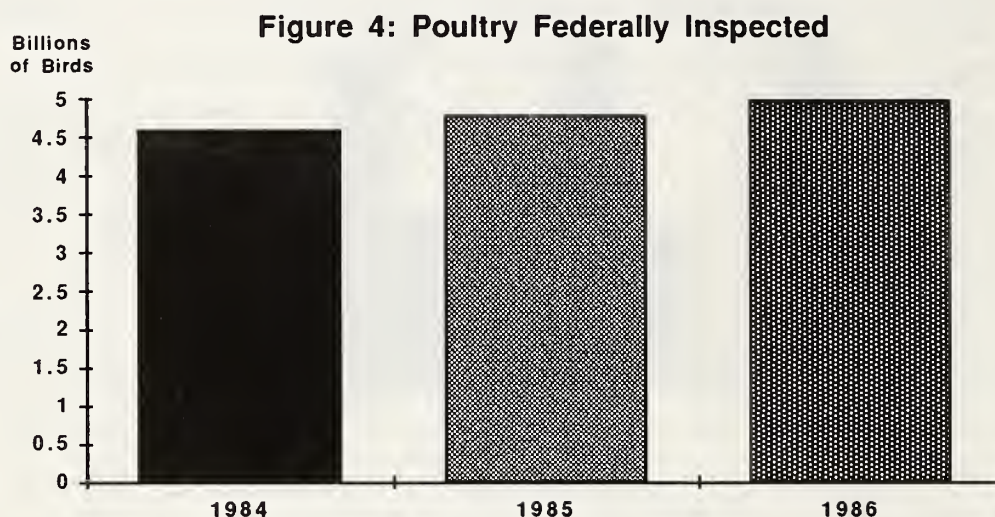


Table 4

Class	1984	1985	1986
Young chickens	4,203,134,000	4,426,770,000	4,592,625,000
Mature chickens	173,120,000	188,979,000	186,588,000
Fryer-roaster turkeys	3,320,000	3,821,000	4,219,000
Young turkeys	158,256,000	166,811,000	186,193,000
Mature turkeys	1,096,000	1,399,000	1,162,000
Ducks	19,944,000	21,355,000	22,676,000
Other	1,301,000	1,107,000	1,242,000
Total	4,560,171,000	4,810,242,000	4,994,705,000

Processed Meat and Poultry Products Federally Inspected. Figure 5 and table 5 summarize the Federal inspection of processed meat and poultry products during fiscal years 1984-86. The weight figures represent

the total weight of finished products, including ingredients other than meat or poultry. The figures reflect some multiple counting of complex processed products, which may require inspection at several points during processing.

Figure 5: Processed Meat and Poultry Products Federally Inspected

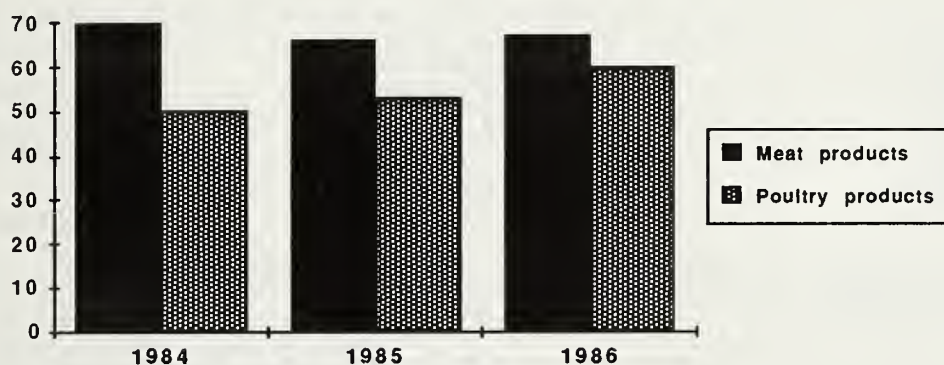


Table 5

Product (billion pounds)	1984	1985	1986
Meat products	70.327	66.467	66.605
Poultry products	49.535	53.101	60.471
Total	119.862	119.568	127.076

Animal Carcasses Condemned. Table 6 summarizes the number of animal and poultry carcasses condemned during fiscal year 1986. Animals are

condemned for disease, contamination, or adulteration during ante-mortem or post-mortem inspection.

Table 6

Species or class	Inspected carcasses	Condemned carcasses	Condemned as a percentage of those inspected
Cattle	34,822,173	132,111	0.38
Calves	3,215,160	51,857	1.61
Swine	77,245,836	168,937	0.22
Goats	147,222	978	0.66
Sheep	5,410,521	22,937	0.42
Equine	170,576	1,014	0.59
Total Meat	121,011,488	377,834	0.31
Young chickens	4,592,625,000	46,648,328	1.02
Mature chickens	186,588,000	6,082,439	3.26
Fryer-roaster turkeys	4,219,000	32,508	0.77
Young turkeys	186,193,000	1,997,537	1.07
Mature turkeys	1,162,000	30,344	2.61
Ducks	22,676,000	308,576	1.36
Other	1,242,000	7,754	0.62
Total Poultry	4,994,705,000	55,107,486	1.10

Prior Label Approval. Table 7 summarizes the number of meat and poultry product labels reviewed and either approved or not approved by the

Standards and Labeling Division (SLD) of Technical Services and Inspectors-in-Charge (IIC) during fiscal year 1986.

Table 7

Activity	Number
Labels approved by SLD	99,053
Labels approved by IIC's	30,498
Labels not approved	18,899
Total labels reviewed	148,450

Samples Analyzed. Table 8 summarizes the number of analyses by Science laboratories of meat and poultry samples during fiscal year

1986. Of the samples, approximately 92,800 were taken from processed products such as hams, sausages, cured meats, and similar items.

Table 8

Category of samples and analyses	Total
Food chemistry	77,101
Food microbiology and species	15,733
Chemical residues	37,204
Antibiotic residues	**172,751
Pathology (residue)	351
Pathology (nonresidue)	11,372
Serology	4,449
Food additives and nonfoods	12,557
Total	331,518

**Includes 19,293 STOP (Swab Test on Premises) and 133,354 CAST (Calf Antibiotic Sulfa Test) analyses.

Compliance Activities. Table 9 summarizes enforcement actions taken in fiscal year 1986. Some of these actions were based on compliance reviews of meat and poultry handlers. Approximately 53,000 reviews were made

in fiscal year 1986. Approximately 12,000 handlers are periodically reviewed; risk categories determine the frequency of scheduled reviews. Random reviews are also conducted.

Table 9

Action	Number	Pounds
Detention of suspect products	1,000	22,561,811
Monitoring of product recalls	18	1,590,661
Court seizures initiated by Compliance	3	10,113
Evaluation Incident Reports filed		
[Irregularities reported to inspection supervisors]	2,130	
Cases received by Compliance	1,154	
Cases referred to Inspector General	6	
Cases requiring consultation with General Counsel	69	
Letters of warning issued	1,605	
Convictions	33	
Administrative actions to withdraw inspection filed	12	

Facilities and Equipment Review.
Table 10 summarizes the number of blueprints and equipment drawings

reviewed by the Facilities, Equipment and Sanitation Division of Technical Services during fiscal year 1986.

Table 10

Activity	Number
Blueprints of plants	3,508
Drawings of equipment	2,587

Inspection Training. Table 11 shows the number of persons trained by the Training Division of Technical

Services during fiscal years 1985 and 1986 and the types of training received.

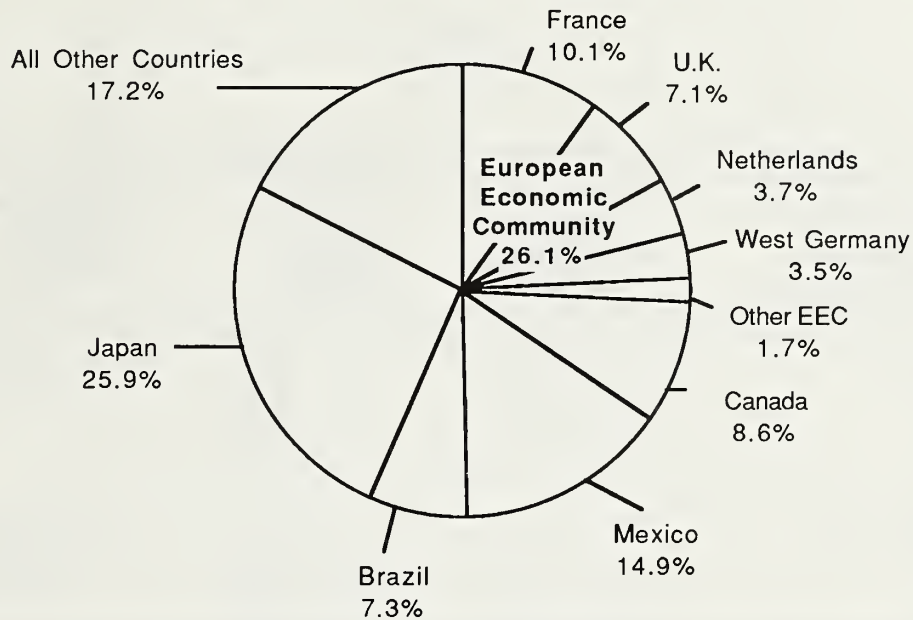
Table 11

	1985	1986
Persons trained		
Federal employees	1,591	1,107
State employees	40	61
Others	158	120
Types of training [number of employees reached]		
Correspondence courses [total]	2,064	1,892
Basic educational skills	923	757
Technical subjects	1,141	1,135
Audiovisual programs	2,975	540

U.S. Meat Exports. Figure 6 shows for fiscal year 1986 the volume of

U.S. meat exports and the major countries receiving the products.

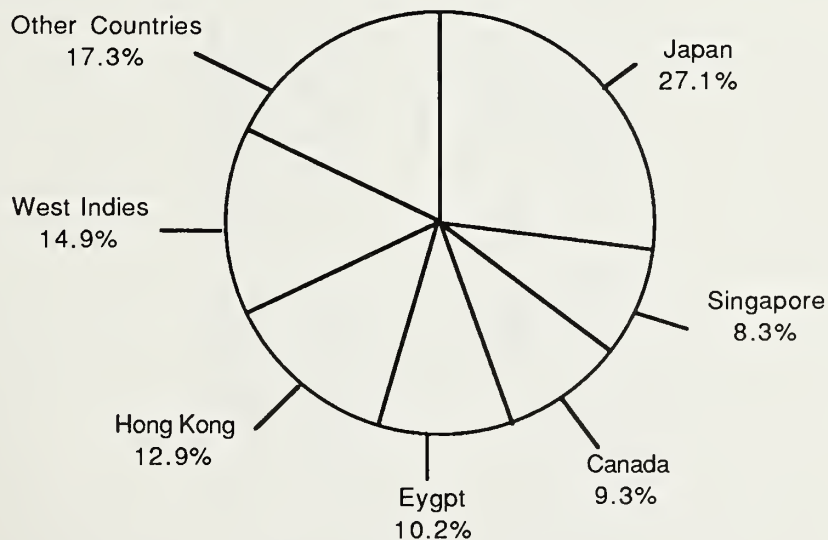
Figure 6: Major Receivers of U.S. Red Meat Exports



U.S. Poultry Exports. Figure 7 shows for fiscal year 1986 the volume of

U.S. poultry exports and the major countries receiving the products.

Figure 7: Major Receivers of U.S. Poultry Exports



Change in Meat Exports. Table 12 shows the increase or decrease in U.S. meat exports between fiscal years 1985

and 1986, the volume of U.S. meat exports, and the major countries receiving the products.

Table 12

Area/Country	Million Pounds	Percentage of total U.S. meat exports	Change from 1985 in millions of pounds
North America	356	23.7	-21
Canada	129	8.6	-5
Mexico	225	14.6	-13
Other	2	0.2	-3
South America and Caribbean	193	12.9	119
Belize	4	0.3	1
Bermuda	6	0.4	--
Brazil	110	7.3	110
Haiti	6	0.4	-2
Panama	4	0.3	--
West Indies	55	3.7	10
Other	8	0.5	--
Europe	419	27.8	-6
European Economic Community [EEC]	393	26.1	-9
Other	26	1.7	3
Asia	414	27.5	58
Hong Kong	9	0.6	1
Japan	390	25.9	72
Singapore	2	0.2	-1
South Korea	3	0.2	-6
Taiwan	5	0.3	--
Other	5	0.3	-8
Middle East	103	6.8	5
Egypt	89	5.9	7
Israel	7	0.4	1
Saudi Arabia	6	0.4	-2
Other	1	0.1	-1
Africa	5	0.3	-1
Other	16	1	4
Total	1506 <i>1,000,000</i>	100	158

Change in Poultry Exports. Table 13 shows the increase or decrease in poultry exports between fiscal years

1985 and 1986, the volume of U.S. poultry exports, and the major countries receiving the products.

Table 13

Area/Country	Million Pounds	Percentage of total U.S. poultry exports	Change from 1985 in millions of pounds
North America	70	10.5	10
Canada	62	9.3	9
Mexico	8	1.2	5
Other	--	--	4
South America and Caribbean	106	15.8	6
Belize	--	--	--
Bermuda	2	0.3	-1
Brazil	--	--	--
Haiti	--	--	-1
Panama	2	0.3	--
West Indies	100	14.9	9
Other	2	0.3	-1
Europe	52	7.9	-6
European Economic Community [EEC]	47	7.1	-5
Other	5	0.8	-1
Asia	326	48.9	50
Hong Kong	86	12.9	-4
Japan	181	27.1	61
Singapore	55	8.3	-1
South Korea	--	--	--
Taiwan	--	--	--
Other	4	0.6	-6
Middle East	78	11.7	43
Egypt	68	10.2	44
Israel	--	--	--
Saudi Arabia	6	0.9	-1
Other	4	0.6	--
Africa	7	1.1	--
Other	28	4.1	5
Total	667,500,000	100	108

Table 14

State	Meat	Poultry
Arkansas	6/1/81	1/2/71
California	4/1/76	4/1/76
Colorado	7/1/75	1/2/71
Connecticut	10/1/75	10/1/75
Georgia		1/2/71
Idaho	7/1/81	1/2/71
Kentucky	1/14/72	7/28/71
Maine	5/12/80	1/2/71
Massachusetts	1/12/76	1/12/76
Michigan	10/3/81	1/2/71
Minnesota	5/16/71	1/2/71
Missouri	8/18/72	8/18/72
Montana	4/27/71	1/2/71
Nebraska	10/1/71	7/28/71
Nevada	7/1/73	7/1/73
New Hampshire	8/7/78	8/7/78
New Jersey	7/1/75	7/1/75
New York	7/16/75	4/11/77
North Dakota	6/22/70	1/2/71
Oregon	7/1/72	1/2/71
Pennsylvania	7/17/72	10/31/71
Rhode Island	10/1/81	10/1/81
South Dakota		1/2/71
Tennessee	10/1/75	10/1/75
Utah		1/2/71
Washington	6/1/73	6/1/73
West Virginia		1/2/71

State Program Data. Table 15 (see next page) summarizes the number of States at the end of fiscal year 1986 with intrastate inspection programs for meat (27) and poultry (23); the number of State program employees as of September 30, 1986; and Federal funding assistance expended by States during fiscal year 1986. "M" after the name of the State indicates that the State conducted a meat inspection

program; "M & P" indicates that the State conducted meat and poultry inspection programs.

In order to continue operating intrastate inspection programs, and in order to continue receiving Federal funding assistance, States must maintain inspection requirements at least equal to those of the Federal program. During 1986, 1,470 intrastate plants were reviewed by field supervisors in accordance with requirements of the Federal inspection laws.

Table 15

State Inspection Program										Budget	
State	Plants					Employees (Staff-years)			FY 1986 Federal		
	Official			Exempt		Total	Full-time	Part-time	Total	Funding Assistance Expended (* = Estimate)	
	Meat	Poultry	Meat/Poultry	Meat	Poultry						
Alabama M&P	70	8	17	45	0	140	52	4.7	56.7	954,625*	
Alaska M&P	10	0	5	4	0	19	7	3.5	10.5	384,678	
Arizona M& P	52	5	1	42	0	100	24	2	26	416,469	
Delaware M&P	6	0	0	4	1	11	13	2	15	244,504	
Florida M&P	161	4	54	53	0	272	124	1	125	1,736,265	
Georgia M 1/	132	0	0	44	0	176	125	2.5	127.5	2,076,246	
Hawaii M&P	47	5	11	1	0	64	49	1	50	940,511	
Illinois M&P	390	28	31	24	14	487	164	3.5	167.5	2,793,950	
Indiana M&P	99	9	48	40	6	202	114	0	114	1,852,025	
Iowa M&P	171	8	0	163	18	360	43	0	43	807,211	
Kansas M&P	180	7	4	27	1	219	65	4	69	1,096,483	
Louisiana M&P	98	6	40	80	0	224	111	14	125	1,648,109	
Maryland M&P	42	9	2	21	0	74	45	5	50	762,611	
Mississippi M&P	80	3	0	20	3	106	80	4	84	1,008,896	
New Mexico M&P	40	1	0	25	0	66	15	2.9	17.9	309,218	
North Carolina M&P	205	15	0	83	0	303	132	0.3	132.3	2,145,367	
Ohio M&P	338	43	0	108	23	512	202	8	210	3,460,657	
Oklahoma M&P	85	7	1	106	0	205	90	0	90	1,562,757	
South Carolina M&P	74	9	27	0	0	110	56	0.1	56.1	778,622*	
South Dakota M 1/	61	0	0	73	0	134	18	6.8	24.8	311,648	
Texas M&P	471	20	0	148	2	641	254	0	254	4,036,797	
Utah M 1/	34	0	0	75	0	109	22	8.5	30.5	482,438	
Vermont M&P	17	0	0	17	1	35	14	0.5	14.5	206,624	
Virginia M&P	15	2	6	171	1	195	51	2	53	951,093	
West Virginia M1/	44	0	0	43	0	87	35	0	35	618,530	
Wisconsin M&P	226	12	75	162	5	480	94	2	96	1,825,650	
Wyoming M&P 2/	31	0	0	47	0	78	12	0.6	12.6	0	
Total 4/	3179	201	328	1626	75	5409	2011	78.9	2089.9	33,411,984	
California 3/	0	0	0	414	16	430	2	0	2	92,710	
Minnesota 3/	0	0	0	377	10	387	3	0	3	120,793	

1/ Poultry Program under Federal jurisdiction.

2/ Does not accept Federal funds for inspection program.

3/ Official plants are under Federal jurisdiction. Custom exempt facilities are reviewed under State jurisdiction.

4/ Funds shown exclude the dollars for reimbursable overtime for T/A plants. These costs are federally funded at 100%.

Talmadge-Aiken Plants. Table 16 lists the number of meat and poultry plants inspected under Talmadge-Aiken agreements as of September 30, 1986.

USDA is responsible for inspection in such plants. However, Federal inspection is carried out by State employees.

Table 16

State	Meat plants	Poultry plants	Meat/poultry plants	Total
Alabama	5	--	7	12
Alaska	--	--	2	2
Delaware	8	--	2	10
Florida	2	--	1	3
Georgia	26	--	26	52
Hawaii	4	--	4	8
Illinois	16	1	9	26
Indiana	1	--	5	6
Louisiana	3	--	1	4
Maryland	9	2	13	24
Mississippi	8	--	9	17
New Mexico	2	--	5	7
North Carolina	41	1	10	52
Ohio	--	1	--	1
Oklahoma	3	--	18	21
Texas	15	1	18	34
Utah	2	--	3	5
Vermont	--	--	--	--
Virginia	24	2	18	44
Wyoming	--	--	1	1
Total	169	8	152	329

Foreign Program Review and Import Inspection

Information on foreign program review and import inspection is presented on a calendar year basis, as required by the Federal Meat Inspection Act. Information on both meat and poultry imports is included.

Although no formal report is required by the Poultry Products Inspection Act, it should be noted that poultry imports are controlled under regulations comparable to those applied to meat imports. Only limited quantities of poultry products, mainly specialty items, are imported into the United States.

Foreign Program Review

Federal meat and poultry inspection laws require countries exporting meat or poultry to the United States to impose inspection requirements at least equal to U.S. requirements. The Foreign Programs Division evaluates foreign meat and poultry inspection programs through system reviews, including onsite reviews of plants in the eligible country.

Eligible Countries and Licensed Foreign Inspectors. Eligible foreign inspection systems are responsible for the continuous inspection of products destined for export to the United States. Table 17 lists the number of inspectors licensed by each country that exercised its privilege to export meat and/or poultry to the United States in 1986. The number of inspectors in each country depends on the number of

System Review. System review includes an evaluation of the laws, policies, and operation of the inspection system in each country that is eligible to export products to the United States. FSIS now evaluates country controls in the following risk areas: disease, residues, contamination, processing, and economic fraud/compliance.

On-site Reviews. On-site reviews of exporting plants and system operations--including facilities and equipment, laboratories, and training--are ways FSIS evaluates the effectiveness of foreign inspection systems. Twenty FSIS foreign programs officers conduct on-site reviews in eligible exporting countries. An addendum to this report, Foreign Plants Certified to Export Meat to the United States, summarizes data from 1986 plant reviews.

certified plants and the volume of products shipped to the United States. No inspectors are listed for the following eligible countries, which did not exercise export privileges in 1986: Austria, Japan, Northern Ireland, Norway, Paraguay, Scotland, Spain, and Venezuela. "P" indicates the country was eligible to export poultry products to the United States.

Table 17

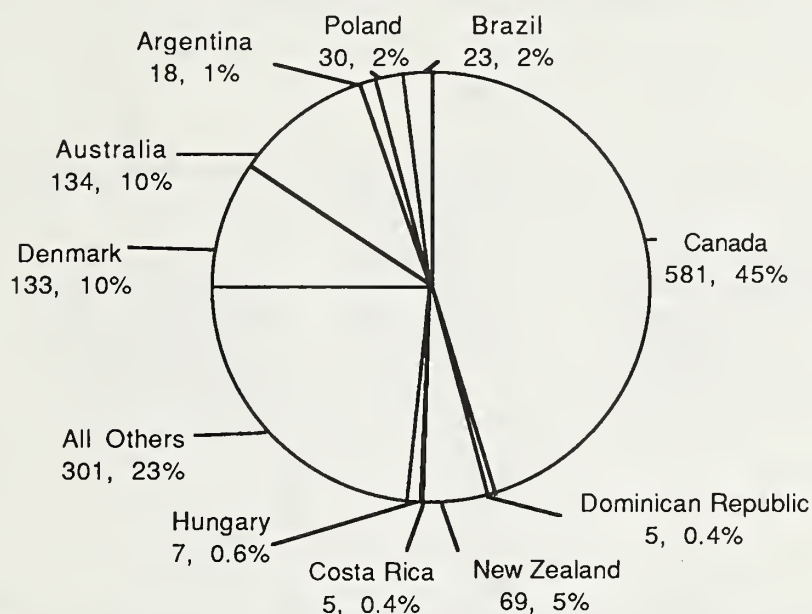
Country	Licensed Foreign Inspectors
Argentina	306
Australia	1691
Belgium	3
Belize	4
Brazil	317
Canada [P]	1481
Costa Rica	37
Czechoslovakia	52
Denmark	1478
Dominican Republic	20
El Salvador	6
England	3
Finland	25
France [P]	65
Federal Republic of Germany	50
Guatemala	10
Honduras	20
Hong Kong [P]	10
Hungary	110
Iceland	10
Ireland	30
Israel [P]	44
Italy	30
Netherlands	331
New Zealand	1287
Panama	6
Poland	838
Romania	243
Sweden	67
Switzerland	42
Taiwan	21
Uruguay	200
Yugoslavia	124
Total	8961

Certified Plants in Leading Export Countries. Figure 8 shows the

number of certified plants in the leading export countries during 1986.

Figure 8: Number of Certified Plants in Leading Export Countries-1,306

Total Pounds Imported:
2,437,144,022



Foreign Plants Authorized to Export Products to United States. Table 18 lists, by country, the number of plants certified to export meat or poultry products to the United States during 1986. No plants are listed for

the following eligible countries, which did not export during 1986: Austria, Japan, Northern Ireland, Norway, Paraguay, Scotland, Spain, and Venezuela.

Table 18

Country	Authorized 1/1/86	Plants removed	Plants granted authorization	Plants reinstated	Authorized plants on 12/31/86
Argentina	20	2	0	0	18
Australia	123	21	23	9	134
Belgium	3	0	0	0	3
Belize	1	0	0	0	1
Brazil	23	2	1	1	23
Canada	559	12	33	1	581
Costa Rica	4	0	1	0	5

Table 18 (continued)

Country	Authorized 1/1/86	Plants removed	Plants granted authorization	Plants reinstated	Authorized plants on 12/31/86
Czechoslovakia	2	1	0	1	2
Denmark	135	4	1	1	133
Dominican Republic	4	0	1	0	5
El Salvador	1	0	0	0	1
England	1	0	0	0	1
Finland	3	0	1	0	4
France	91	0	6	0	97
Federal Republic of Germany	16	0	2	0	18
Guatemala	4	3	0	1	2
Honduras	5	1	0	0	4
Hong Kong	1	0	0	0	1
Hungary	7	0	0	0	7
Iceland	3	0	0	0	3
Ireland	2	1	0	0	1
Israel	24	0	4	0	28
Italy	22	2	9	0	29
Netherlands	31	1	1	0	31
New Zealand	66	3	4	2	69
Panama	1	0	0	0	1
Poland	29	2	1	2	30
Romania	7	0	5	0	12
Sweden	14	0	0	0	14
Switzerland	13	0	0	0	13
Taiwan	1	1	0	0	0
Uruguay	21	1	1	0	21
Yugoslavia	13	14	1	14	14
Total	1250	71	95	32	1306

Plants Removed from Authorized List.

Table 19 lists, by country, the number of plants that became ineligible to export meat or poultry products to the United States during 1986. Reasons for withdrawal include normal

attrition, plant management decisions to withdraw from U.S. market, or determination by foreign governments that plants do not comply with U.S. standards.

Table 19

Country	Complied with U.S. standards. Withdrawn at plant's request.	Did not comply with U.S. standards. Withdrawn by inspection service.	Not reviewed by USDA--compliance undetermined. Withdrawn at plant's request.	Total plants removed.
Argentina	1	0	1	2
Australia	4	6	11	21
Brazil	0	1	1	2
Canada	1	2	9	12
Czechoslovakia	0	1	0	1
Denmark	2	1	1	4
Guatemala	3	0	0	3
Honduras	1	0	0	1
Ireland	1	0	0	1
Italy	0	1	1	2
Netherlands	1	0	0	1
New Zealand	1	2	0	3
Poland	0	2	0	2
Taiwan	0	1	0	1
Uruguay	1	0	0	1
Yugoslavia	0	0	14	14
Total	16	17	38	71

Plants Visited by FSIS Reviewers and Rejected for Failure to Meet USDA Standards. Table 20 summarizes all

foreign plants visited by USDA reviewers and found not in compliance with U.S. standards during 1986.

Table 20

Country	Inspection deficiencies	Sanitation deficiencies	Construction and equipment deficiencies	Adulterated products	Total Plants rejected (may include more than one deficiency)
Australia	4	6	1	0	6
Brazil	0	1	0	0	1
Canada	1	2	0	0	2
Czechoslovakia	1	1	0	0	1
Denmark	1	1	0	0	1
Italy	1	1	1	0	1
New Zealand	0	2	1	0	2
Poland	2	0	2	0	2
Taiwan	1	1	0	0	1
Total	11	15	5	0	17

Import Inspection

Import inspection is a check on the effectiveness of foreign inspection systems in assuring wholesome, accurately labeled products that meet U.S. standards. FSIS uses data from import inspection, including randomly selected monitoring samples, to evaluate foreign inspection systems.

About 133 import inspection personnel carried out import inspection during 1986 at 198 official import establishments. Imported meat and poultry that undergoes further processing in the United States is subject to further scrutiny in federally inspected plants.

Figure 9 summarizes the volume of products exported to the United States by leading countries during 1986. Ten

countries were responsible for 95 percent of the products.

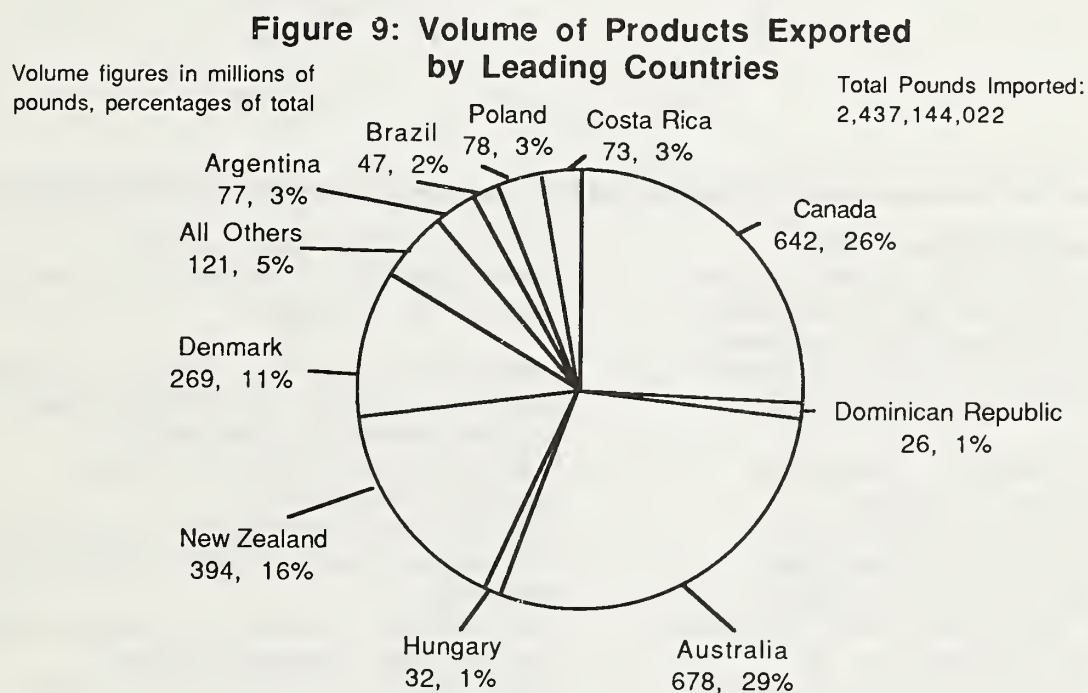


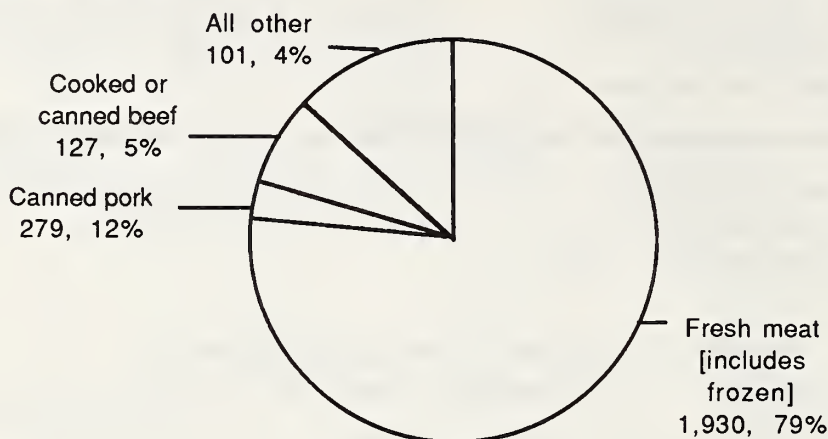
Figure 10 shows the major types of products imported into the United

States during 1986.

Figure 10: Types of Products Imported into United States

Volume figures in millions of pounds, percentages of total imports

Total pounds imported:
2,437,144,022



Inspection certificates. An inspection certificate issued by the responsible official of the exporting country must accompany each shipment of meat or poultry products offered for entry into the United States.

Certificates identify products by country and plant of origin, destination, shipping marks, and amounts. They certify that the products received ante-mortem and post-mortem inspection; that they are wholesome, not adulterated, or misbranded; and that they otherwise comply with U.S. requirements.

Automated Import Information System. A description of each lot arriving at U.S. ports is entered into the Automated Import Information System (AIIS). This computerized system centralizes inspection and shipping information from all ports, allowing FSIS to determine inspection requirements based on the compliance

history of each country and establishment. Information stored in the system includes:

- Amount and kind of products offered from each country and establishment and the amount refused entry;
- Results of certification and labeling inspections;
- Results of organoleptic inspection for defects such as bone, hair, and cartilage;
- Results of laboratory samples tested for residues, proper cooking temperatures, economic, and other adulterants.

To assure that representative samples are selected, statistical sampling plans are applied to each lot of product to be inspected. The sampling plans and criteria for acceptance or rejection of imports are the same as those applied to U.S. meat and poultry products prepared under Federal inspection.

Residues in Imported Products.

Imported meat and poultry products are sampled for the presence of chemical and drug residues. As for domestic inspection, shipments are not held pending laboratory test results unless there is some reason to suspect contamination.

If a laboratory reports a residue violation on a monitoring sample, efforts are made to locate any part of the shipment that is still available.

Products recovered are not allowed to be used for human food.

All results from 1986 had not yet been compiled at the time this report was prepared. However, of 15,096 residue monitoring samples collected and submitted for laboratory analysis, in only 38 instances have products been found to contain drug or chemical residues exceeding tolerances.

Table 21: Products Passed for Entry

Tables 21 through 21D show for 1986 the volume of products imported into the United States from each eligible country and itemize each major product category.

Table 21

Country of origin	Pounds of fresh meat and edible organs						
	Manufacturing	Carcasses and cuts	Beef	Head meat and tongue	Edible organs	Manufacturing	Veal
							Carcasses and cuts
							Edible organs
Argentina	0	0	0	0	0	0	0
Australia	553,131,118	96,128,271	2,309,078	26,869	4,377,747	902,489	255,400
Belgium	0	0	0	0	0	0	0
Brazil	0	0	0	0	0	0	0
Belize	251,177	24,579	0	0	0	0	0
Canada	87,983,236	69,127,607	517,743	92,655	121,316	5,565,019	0
Costa Rica	48,053,692	24,576,530	0	0	0	0	0
Czechoslovakia	0	0	0	0	0	0	0
Denmark	3,022,275	314,720	0	0	33,480	0	0
Dominican Republic	16,270,913	9,545,626	0	0	0	0	0
El Salvador	367,050	239,366	0	0	0	0	0
Finland	0	0	0	0	0	0	0
France	0	0	0	0	0	0	0
Germany	0	0	0	0	0	0	0
Guatemala	5,419,729	3,502,805	0	0	0	0	0
Honduras	16,104,896	5,715,062	0	2,456	0	0	0
Hong Kong	0	0	0	0	0	0	0
Hungary	0	0	0	0	0	0	0
Iceland	0	0	0	0	0	0	0
Ireland	2,429,100	0	0	0	0	0	0
Israel	0	0	0	0	0	0	0
Italy	0	0	0	0	0	0	0
Netherlands	0	0	0	0	0	0	0
New Zealand	320,492,805	29,774,296	603,924	38,160	10,379,821	5,101,046	310,628
Poland	0	0	0	0	0	0	0
Romania	0	0	0	0	0	0	0
Sweden	6,558,429	789,390	0	0	0	0	0
Switzerland	0	0	0	0	0	0	0
Taiwan	0	0	0	0	0	0	0
Uruguay	0	0	0	0	0	0	0
Yugoslavia	0	0	0	0	0	0	0
Total	1,060,084,420	239,738,252	3,430,745	160,140	14,912,364	11,568,554	566,028

Table 21A

Country of origin	Pounds of fresh meat and edible organs					
	----- Manufacturing	Mutton and Lamb Carcasses and cuts	----- Edible organs	----- Manufacturing	Pork Carcasses and cuts	----- Edible organs
Argentina		0	0	0	0	0
Australia	1,219,732	17,952,979	57,629	246,521	595,394	0
Belgium	0	0	0	0	0	0
Brazil	0	0	0	0	0	0
Belize	0	0	0	0	0	0
Canada	0	53,409	0	86,453,563	354,391,337	225,562
Costa Rica	0	0	0	0	0	0
Czechoslovakia	0	0	0	0	0	0
Denmark	0	0	0	37,306,983	55,465,441	1,200
Dominican Republic						
El Salvador	0	0	0	0	0	0
Finland	0	0	0	1,106,002	1,327,269	0
France	0	0	0	0	0	0
Germany	0	0	0	0	0	0
Guatemala	0	0	0	0	0	0
Honduras	0	0	0	0	0	0
Hong Kong	0	0	0	298,256	0	0
Hungary	0	0	49,900	0	0	0
Iceland						
Ireland	0	0	0	0	0	0
Israel	0	0	0	0	0	0
Italy	0	0	0	0	0	0
Netherlands						
New Zealand	4,645,810	21,350,203	62,926	0	0	0
Poland	0	0	0	0	0	0
Romania	0	0	0	0	0	0
Sweden	0	0	0	3,430,854	13,752,996	0
Switzerland	0	0	0	0	0	0
Taiwan	0	0	0	0	0	0
Uruguay	0	0	0	0	0	0
Yugoslavia	0	0	0	0	0	0
Total	5,865,542	39,356,591	170,455	128,842,179	425,532,437	226,762

Table 21B

Country of origin	Cured beef	Cured pork	Sausage (Trichina- treated)	Cooked beef (restricted)	Other cooked beef	Miscellaneous	Horsemeat
Argentina	670,630	0	0	0	36,539,997	4,443,300	0
Australia	10,793	0	0	0	64,011	395,559	0
Belgium	0	129,600	0	0	0	0	0
Brazil	93,150	0	0	0	2,556,009	1,009,345	0
Belize	0	0	0	0	0	0	0
Canada	3,625	13,308,333	0	0	43,825	16,332,890	0
Costa Rica	0	0	0	0	0	0	0
Czechoslovakia	0	0	0	0	0	0	0
Denmark	0	4,307,626	0	0	0	7,359,602	0
Dominican Republic	0	0	0	0	0	0	0
El Salvador	0	0	0	0	0	0	0
Finland	0	0	0	0	0	0	0
France	0	0	0	0	0	1,512	0
Germany	0	114,948	0	0	0	352,136	0
Guatemala	0	0	0	0	0	0	0
Honduras	0	0	0	0	0	0	0
Hong Kong	0	0	0	0	0	0	0
Hungary	0	5,014,030	0	0	0	765,777	0
Iceland	0	0	0	0	0	0	0
Ireland	0	0	0	0	0	56,253	0
Israel	0	0	0	0	0	0	0
Italy	0	0	0	0	0	0	0
Netherlands	0	0	0	0	0	0	0
New Zealand	64,681	0	0	0	55	45,619	0
Poland	0	462,762	0	0	0	0	0
Romania	0	706,051	0	0	0	57,720	0
Sweden	0	846,150	0	0	0	37,077	0
Switzerland	0	152,892	0	0	0	27,735	0
Taiwan	0	0	0	0	0	0	0
Uruguay	0	0	0	0	2,446,197	313,296	0
Yugoslavia	0	54,008	0	0	0	44,816	0
Total	842,879	25,096,400	0	0	41,650,094	31,242,637	0

Table 21C

Pounds of canned meat

Country of origin	Corned beef	Other beef	Hams-- under 3 lbs.	Hams-- 3-6 lbs.	Hams-- over 6 lbs.	Picnic hams
Argentina	28,414,226	6,539,494	0	0	0	0
Australia	290,157	0	0	0	0	0
Belgium	0	0	0	0	6,014,870	1,622,194
Brazil	34,327,809	9,354,874	0	0	0	0
Belize	0	0	0	0	0	0
Canada	0	202,584	0	0	976,021	72,065
Costa Rica	0	0	0	0	0	0
Czechoslovakia	0	0	0	0	1,781,214	122,310
Denmark	0	0	5,616,160	1,813,902	114,276,907	19,714,553
Dominican Republic	0	0	0	0	0	0
El Salvador	0	0	0	0	0	0
Finland	0	0	0	0	0	0
France	0	0	0	0	0	0
Germany	0	0	0	0	0	0
Guatemala	0	0	0	0	0	0
Honduras	0	0	0	0	0	0
Hong Kong	0	0	0	0	0	0
Hungary	0	0	641,760	3,221,880	13,284,723	6,047,371
Iceland	0	0	0	0	0	0
Ireland	0	0	0	0	0	0
Israel	0	0	0	0	0	0
Italy	0	0	0	0	5,148	0
Netherlands	0	0	2,780,585	33,480	1,695,018	382,077
New Zealand	739,987	0	0	0	0	0
Poland	0	0	1,099,122	11,929,390	50,078,378	10,095,360
Romania	0	0	0	0	3,063,889	2,195,550
Sweden	0	0	0	0	0	0
Switzerland	0	0	0	0	0	0
Taiwan	0	0	0	0	318,560	158,880
Uruguay	3,431,153	1,499,524	0	0	0	0
Yugoslavia	0	10,500	32,160	0	16,580,722	3,279,731
Total	67,203,332	17,606,976	10,169,787	16,998,652	208,075,450	43,690,091

Table 21D

Country of origin	Other canned pork	Chopped ham luncheon	Other canned meat	Pounds of fresh poultry	Poultry Pounds of miscellaneous poultry	Total pounds passed for entry
Argentina	0	0	0	0	0	76,607,647
Australia	0	38,966	572,541	0	0	678,575,254
Belgium	0	0	9,742	0	0	7,776,406
Brazil	0	0	420	0	0	47,341,607
Belize	0	0	0	0	0	275,756
Canada	1,386	0	2,758,849	2,397,901	1,633,977	642,262,903
Costa Rica	0	0	0	0	0	72,603,222
Czechoslovakia	0	0	0	0	0	1,903,524
Denmark	206,960	20,111,796	0	0	0	269,551,605
Dominican Republic	0	0	0	0	0	25,816,539
El Salvador	0	0	0	0	0	606,416
Finland	0	32,400	0	0	0	2,465,671
France	0	0	578,721	0	21,293	601,526
Germany	0	0	3,238	0	0	470,322
Guatemala	0	0	0	0	0	8,922,534
Honduras	0	0	0	0	0	21,822,414
Hong Kong	0	0	0	0	804,749	804,749
Hungary	1,683,096	1,210,800	0	0	0	32,167,693
Iceland	0	0	0	0	0	49,900
Ireland	0	0	27,109	0	0	2,456,209
Israel	0	0	7,419	0	2,492,924	2,556,596
Italy	0	0	222,218	0	0	227,366
Netherlands	0	3,676,255	7,515	0	0	8,574,930
New Zealand	0	0	39,595	0	0	393,649,556
Poland	563,790	3,657,435	0	0	0	77,886,237
Romania	59,508	1,272,702	0	0	0	7,355,420
Sweden	0	0	0	0	0	25,414,896
Switzerland	0	0	0	0	0	180,627
Taiwan	0	0	0	0	0	477,440
Uruguay	0	0	0	0	0	7,690,170
Yugoslavia	0	0	19,950	0	0	20,021,887
Total	2,514,740	30,000,354	4,247,317	2,397,901	4,952,943	2,437,144,022

Reasons for Product Rejection. Meat and poultry shipments found unacceptable during import inspection are refused U.S. entry. During 1986, adulteration with extraneous material was the principal defect found in fresh meat products.

Other defects for each product type are listed below in order of their occurrence as recorded during inspection.

Fresh beef and veal

1. Contamination
2. Unsound condition
3. Labeling defects
4. Pathology
5. Residues

Fresh mutton and lamb

1. Contamination
2. Unsound condition
3. Pathology
4. Residues

Canned beef

1. Container defects
2. Failure to meet product standards
3. Contamination
4. Labeling defects
5. Residues

Canned pork and other canned meat

1. Container defects
2. Failure to meet product standards
3. Labeling defects
4. Contamination
5. Residues
6. Undercooking

Cooked beef

1. Unsound condition
2. Contamination
3. Container defects
4. Pathology

Fresh poultry

1. Processing defects
2. Labeling defects

Specialty poultry products

1. Labeling defects
2. Container defects

Table 22: Products Refused Entry

Tables 22 through 22D show for 1986 the volume of products refused entry from each eligible country and itemize.

each major product category refused entry or condemned.

Table 22

Country of origin	Pounds of fresh meat and edible organs					
	Manufacturing	Beef	Head meat	Edible	Veal	Edible
		Carcasses and cuts	and tongue	organs	Carcasses and cuts	organs
Argentina	0	0	0	0	0	0
Australia	1,139,008	258,544	5,760	0	620	57
Belgium	0	0	0	0	0	0
Brazil	0	0	0	0	0	0
Belize	2,460	0	0	0	0	0
Canada	1,656,125	340,881	48,272	0	0	43,174
Costa Rica	6,619	0	0	0	0	0
Czechoslovakia	0	0	0	0	0	0
Denmark	111,000	28,740	0	0	0	0
Dominican Republic	288,299	19,641	0	0	0	0
El Salvador	0	0	0	0	0	0
Finland	0	0	0	0	0	0
France	0	0	0	0	0	0
Germany	0	0	0	0	0	0
Guatemala	10,680	101,405	0	0	0	0
Honduras	2,460	720	0	0	0	0
Hungary	0	0	0	0	0	0
Iceland	0	0	0	0	0	0
Ireland	139,800	0	0	0	242	0
Israel	0	0	0	0	0	0
Italy	0	0	0	0	0	0
Netherlands	0	0	0	0	0	0
New Zealand	224,831	1,353	0	0	61,354	10
Poland	0	0	0	0	0	0
Romania	0	0	0	0	0	0
Sweden	600	0	0	0	0	0
Switzerland	0	0	0	0	0	0
Taiwan	0	0	0	0	0	0
Uruguay	0	0	0	0	0	0
Yugoslavia	0	0	0	0	0	0
Total	3,581,882	751,284	54,032	0	62,216	43,241
						0

Table 22A

Country of origin	Pounds of fresh meat and edible organs					
	Manufacturing	Mutton and Lamb Carcasses and cuts	Edible Organs	Manufacturing	Pork Carcasses and cuts	Edible organs
Argentina	0	0	0	0	0	0
Australia	75,360	45,297	120	0	1,067	0
Belgium	0	0	0	0	0	0
Brazil	0	0	0	0	0	0
Belize	0	0	0	0	0	0
Canada	0	0	0	1,942,805	2,219,899	2,220
Costa Rica	0	0	0	0	0	0
Czechoslovakia	0	0	0	0	0	0
Denmark	0	0	0	932,008	191,414	0
Dominican Republic	0	0	0	0	0	0
El Salvador	0	0	0	0	0	0
Finland	0	0	0	4,330	104	0
France	0	0	0	0	0	0
Germany	0	0	0	0	0	0
Guatemala	0	0	0	0	0	0
Honduras	0	0	0	0	0	0
Hungary	0	0	0	0	0	0
Iceland	0	0	0	0	0	0
Ireland	0	0	0	0	0	0
Israel	0	0	0	0	0	0
Italy	0	0	0	0	0	0
Netherlands	0	0	0	0	0	0
New Zealand	0	16,830	0	0	0	0
Poland	0	0	0	0	0	0
Romania	0	0	0	0	0	0
Sweden	0	0	0	5,111	1,514	0
Switzerland	0	0	0	0	0	0
Taiwan	0	0	0	0	0	0
Uruguay	0	0	0	0	0	0
Yugoslavia	0	0	0	0	0	0
Total	75,360	62,127	120	2,884,254	2,413,998	2,220

Table 22B

Country of origin	Cured beef	Cured pork	Sausage (Trichina-treated)	Cooked beef (restricted)	Other cooked beef	Misc.	Horsemeat
Argentina	0	0	0	0	73,612	3,108	0
Australia	0	0	0	0	0	100	0
Belgium	0	0	0	0	0	0	0
Brazil	0	0	0	0	0	448	0
Belize	0	0	0	0	0	0	0
Canada	0	31,166	0	0	0	165,659	0
Costa Rica	0	0	0	0	0	0	0
Czechoslovakia	0	0	0	0	0	0	0
Denmark	0	58,055	0	0	0	5,860	0
Dominican Republic	0	0	0	0	0	0	0
El Salvador	0	0	0	0	0	0	0
Finland	0	0	0	0	0	0	0
France	0	0	0	0	0	0	0
Germany	0	0	0	0	0	0	0
Guatemala	0	0	0	0	0	0	0
Honduras	0	0	0	0	0	0	0
Hungary	0	8,424	0	0	0	0	0
Iceland	0	0	0	0	0	0	0
Ireland	0	0	0	0	0	0	0
Israel	0	0	0	0	0	0	0
Italy	0	0	0	0	0	0	0
Netherlands	0	0	0	0	0	0	0
New Zealand	0	0	0	0	0	0	0
Poland	0	0	0	0	0	0	0
Romania	0	7,968	0	0	0	0	0
Sweden	0	3,567	0	0	0	0	0
Switzerland	0	0	0	0	0	0	0
Taiwan	0	0	0	0	0	0	0
Uruguay	0	0	0	0	0	31,955	0
Yugoslavia	0	0	0	0	0	0	0
Total	0	109,180	0	0	73,612	207,130	0

Table 22C

Pounds of canned meat

Country of origin	Corned beef	Other beef	Hams-- under 3 lb.	Hams-- 3-6 lb.	Hams-- over 6 lb.	Picnic hams
Argentina	103,565	2,408	0	0	0	0
Australia	0	0	0	0	0	0
Belgium	0	0	0	0	88,320	43,920
Brazil	13,705	5,510	0	0	0	0
Belize	0	0	0	0	0	0
Canada	0	0	0	0	6,384	0
Costa Rica	0	0	0	0	0	0
Czechoslovakia	0	0	0	0	195,518	4,410
Denmark	0	0	3,864	14,256	178,865	145,793
Dominican Republic	0	0	0	0	0	0
El Salvador	0	0	0	0	0	0
Finland	0	0	0	0	0	0
France	0	0	0	0	0	0
Germany	0	0	0	0	0	0
Guatemala	0	0	0	0	0	0
Honduras	0	0	0	0	0	0
Hungary	0	0	0	0	45,852	2,197
Iceland	0	0	0	0	0	0
Ireland	0	0	0	0	0	0
Israel	0	0	0	0	0	0
Italy	0	0	0	0	0	0
Netherlands	0	0	237	0	0	0
New Zealand	0	0	0	0	0	0
Poland	0	0	16,806	52,742	155,575	116,388
Romania	0	0	0	0	84,207	16,730
Sweden	0	0	0	0	0	0
Switzerland	0	0	0	0	0	0
Taiwan	0	0	0	0	81,048	0
Uruguay	120	3,456	0	0	0	0
Yugoslavia	0	0	0	0	624,929	112,424
Total	117,390	11,374	20,907	66,998	1,460,698	441,862

Table 22D

Country of origin	Other canned pork	Chopped ham luncheon	Other canned meat	Pounds of fresh poultry	Poultry misc. poultry	Total pounds refused entry
Argentina	0	0	0	0	0	182,693
Australia	0	0	0	0	0	1,525,933
Belgium	0	0	3,623	0	0	135,863
Brazil	0	0	0	0	0	19,663
Belize	0	0	0	0	0	2,460
Canada	0	0	0	111,658	0	6,568,243
Costa Rica	0	0	0	0	0	6,619
Czechoslovakia	0	0	0	0	0	199,928
Denmark	0	91,201	0	0	0	1,761,056
Dominican Republic	0	0	0	0	0	307,940
El Salvador	0	0	0	0	0	0
Finland	0	0	0	0	0	4,434
France	0	0	1,137	0	20	1,157
Germany	0	0	0	0	0	0
Guatemala	0	0	0	0	0	112,085
Honduras	0	0	0	0	0	3,180
Hungary	0	37,440	0	0	0	93,913
Iceland	0	0	0	0	0	0
Ireland	0	0	0	0	0	140,042
Israel	0	0	156	0	3,526	3,682
Italy	0	0	0	0	0	0
Netherlands	0	5,878	0	0	0	6,115
New Zealand	0	0	0	0	0	304,378
Poland	0	2,348	0	0	0	343,859
Romania	6,314	14,231	0	0	0	129,450
Sweden	0	0	0	0	0	10,792
Switzerland	0	0	0	0	0	0
Taiwan	0	0	0	0	0	81,048
Uruguay	0	0	0	0	0	35,531
Yugoslavia	0	0	0	0	0	737,353
Total	6,314	151,098	4,916	111,658	3,546	12,717,417

Initiatives and Accomplishments

Processed Products Inspection Act

The Processed Products Inspection Improvement Act, signed into law on November 10, 1986, will enable USDA to take a major step forward in modernizing processing inspection by basing the intensity of inspection on public health risk and plant compliance. Inspection under this new program is often referred to as discretionary processing inspection.

P.L. 99-641 also expands the grounds on which USDA may withdraw or refuse to provide inspection services, which are required for a plant to operate. It does not affect the requirement that every animal be inspected at slaughter.

P.L. 99-641 will affect the way processing inspection is carried out in all plants. For the first time, less-than-daily or periodic inspection may be considered for meat processing plants with documented high commitment to producing wholesome products. This would free up limited resources to intensify inspection in higher risk plants. The new law recognizes that differing degrees of inspection may be appropriate to produce the same result -- safe, wholesome, and accurately labeled products.

Discretionary processing inspection will enable USDA to help fulfill another characteristic of the "optimal" inspection system recommended by the 1985 National Academy of Sciences report on the inspection system: an inspection system with different levels of intensity.

Discretionary processing inspection should reduce the need for overtime inspection, which is paid for by inspected plants. It will also enable unannounced visits, a team approach to inspection, and less pressure on the individual inspector. In short, discretionary inspection will foster a

healthier, arms-length relationship between inspectors and plants.

USDA has begun drafting implementing regulations, which will be open to public comment. The Department plans to implement discretionary inspection in meat and poultry processing plants at approximately the same time. If regulatory development and pilot testing proceed successfully, USDA hopes to begin full implementation in early 1988.

Discretionary processing inspection will represent a significant marker on the road to modernization actually begun in the late 1970's.

Evolution of Today's Inspection Program

In June 1986, FSIS responded to the recommendations of the National Academy of Sciences (NAS) report on the scientific basis of the inspection program. The NAS report itself was requested by the Agency as part of its modernization program, and the Agency reviewed its recommendations in light of its long-term planning process.

In its response, FSIS described its long-term objective -- a modernized, more effective organization that:

- maintains consumer protection;
- allocates inspection resources on the basis of risks;
- keeps pace with industry productivity by incorporating scientific and technological advances;
- places the appropriate share of public protection responsibility on industry;
- deters and punishes violators;
- and
- makes best use of qualified people.

In fiscal year 1986, FSIS introduced several improvements, growing from the achievements of past years, that help meet these objectives.

New slaughter inspection systems.

Beginning in January 1986, FSIS successfully implemented a new slaughter inspection system for young chickens -- broilers and cornish game hens. The Streamlined Inspection System was implemented immediately in response to suddenly increased demands on Agency resources.

However, comments were solicited on both the interim rule implementing the new system and the companion proposal on facilities and equipment requirements, in order to determine if changes should be made before the rule becomes final. FSIS is now considering the comments received.

The Streamlined Inspection System is a logical extension of earlier improvements such as Modified Traditional Inspection, which it replaces. Modified Traditional Inspection, the first of the productivity-increasing new inspection procedures, was implemented in 1978.

However, the new system goes beyond merely increasing productivity by increasing efficiency. It applies the knowledge gained from Total Quality Control processing inspection (first implemented in 1980) to slaughter inspection.

The Streamlined Inspection System shifts the responsibility for identifying manufacturing defects -- which do not affect wholesomeness -- from inspection personnel to plant employees. As in older systems, plant employees trim bruises, broken wings, and other quality defects.

The change enables the inspector to concentrate on disease and public health-related abnormalities. However, USDA continues to monitor the effectiveness of the plant's controls by reviewing data from a statistically selected sample of carcasses.

Other new slaughter inspection systems also shift the quality control responsibility back to the plant: the New Line Speed Inspection System,

implemented for high-production poultry lines in 1984; and the New Turkey Inspection System, implemented in 1985. However, because about 80 percent of poultry slaughtered are young chickens, the Streamlined Inspection System will have a greater long-term impact on productivity.

In fiscal year 1986, the Agency continued development and testing of new slaughter inspection systems for cattle and swine.

The Agency also continued development at Accomac, Virginia, of a possible "third-generation" poultry inspection system under which USDA-trained plant employees would sort normal from condemnable carcasses.

A computer would help track the actions of the plant sorters and analyze each sorter's performance. The USDA inspector would monitor the plant's effectiveness by viewing each carcass and monitoring the computer video screen.

Such new systems can be envisioned because of the healthier, uniform poultry flocks produced by today's integrated poultry industry.

The Agency expects to gain further insight into improving slaughter inspection from a second National Academy of Sciences report. The report, expected by March 1987, will assess public health risks associated with poultry inspection systems.

Processing inspection. In fiscal year 1986, the Agency continued field-testing of the Inspection System and Work Plan, which will upgrade processing inspection in traditional plants not under Total Quality Control inspection. (More than 500 processing facilities are now under Total Quality Control Inspection.)

Under the new system, an Inspection System and Work Plan will be prepared for each plant, taking into account its products, processes, and other information. The inspector will carry

out the assigned tasks at the assigned time and document discrepancies. The plan will be kept secured.

This more scientific approach to processing inspection has been in development and testing for several years. Although passage of the new legislation authorizing discretionary processing inspection may affect its final form, the Agency hopes to implement the Inspection System and Work Plan by the close of fiscal year 1987.

Sanitation inspection. In its quest for more science-based inspection methods, the Agency has not lost sight of such basic elements as sanitation.

Beginning in 1983, FSIS implemented in poultry plants a more systematic procedure for checking the cleanliness of a plant's "pre-operative sanitation;" that is, the cleanliness of the plant and its equipment before production begins. However, internal and external criticisms of the effectiveness and documentation of sanitation inspection led the Agency to convene a task force to examine the new procedures.

The task force report, completed in February 1986, recommended several fine-tuning changes to strengthen training and accountability: specific, standard procedures for determining how much of a plant can be inspected in a given time period; a "team" approach to training and to development of a plant's sanitation plan; more readable, easier forms to guide the inspector in sanitation inspection; and prohibiting operations until problems in that area have been corrected.

The Agency expects to implement the new procedures in poultry plants by summer 1987, and later in meat plants.

Human resources. As the inspection program evolves, so must the inspection force. The National Academy of Sciences report

underscored the need for inspection personnel to be more skilled in mathematical statistics, general food science, microbiology, and other scientific disciplines.

In the past, for example, the Agency's senior managers were almost exclusively veterinarians. However, in the last few years FSIS has broadened its management perspective by drawing into senior management roles people with experience in public administration, public health, epidemiology, veterinary pharmacology, economics, and other disciplines.

In 1986, the Agency began training its first class of food technologists, using a combination of formal classes and on-the-job training. Thirteen food technologists -- eight newly hired and five already FSIS employees -- make up this pioneering group.

Because many of tomorrow's inspection jobs will be as food technologists, the Agency is encouraging current employees to enter this series.

FSIS has long recognized the importance of basic training and continuing education. Unfortunately, in order to meet the requirements of the Gramm-Rudman-Hollings law, the Agency found it necessary to sharply curtail all but basic training for most of fiscal year 1986.

Nevertheless, the Agency was able to offer some continuing education in the last months of the fiscal year. For example, the first group of 12 high-potential inspection personnel in the program's "management academy" completed a week of management assessment training.

Another 64 employees attended a 2-day seminar on Hazard Analysis Critical Control Points -- a risk-based approach to processing controls.

Preventing Foodborne Illness

--Old and New

Salmonella control and reduction.

Raw poultry and, to a lesser extent, raw meat contain varying amounts of organisms such as salmonella bacteria.

Though they are common bacteria, salmonellae can cause foodborne illness. Diarrheal foodborne illness has long been dismissed as a temporary inconvenience, but FSIS agrees with other public health authorities that its harmful effects should not be underestimated.

The incidence of salmonellosis -- salmonella food poisoning -- has dramatically increased in recent years. The increase is not due just to better reporting. The human population is being infected from animal sources, with a high degree of association to raw meat and poultry.

Food safety education on proper handling, preparation, and storage of meat and poultry products remains a cornerstone of the Agency's efforts to prevent foodborne illness. However, the Agency also believes that reducing the levels of salmonella and other bacteria on raw meat and poultry leaving federally inspected plants would help reduce the incidence of human illness from food poisoning.

Since 1981, the Agency's main research priority has been commercially feasible methods of salmonella control and reduction. In 1986, the Agency continued this emphasis. The Agency also continued working with industry groups that have adopted salmonella reduction as a priority. The Agency also continues to seek approaches that would offer industry marketplace incentives -- such as special labeling -- if they use innovative manufacturing practices that exceed regulatory requirements to reduce the potential for microbiological contamination.

In 1986, the Agency completed planning

for a new national monitoring program for broilers, to begin in fiscal year 1987. This study will update "benchmark" figures for salmonella prevalence, and will also provide new information on the presence of other pathogens.

Irradiation. In January 1986, FSIS issued a final regulation authorizing the use of low-dose irradiation for trichina control in fresh or previously frozen pork.

No irradiated pork is yet in the marketplace because no company has yet satisfied the full range of inspection requirements, including a quality control plan.

Late in 1986, FSIS also petitioned FDA to authorize medium-dose irradiation of retail-packaged fresh and frozen poultry. The requested dose would reduce levels of bacteria of public health significance.

Irradiation could be a useful aid to food safety if it is accepted by consumers. The Agency recognizes, however, that public education on the safety of irradiated food is essential if food irradiation is to be accepted along with other, more familiar technologies.

Preventing Residues

Program Changes. In 1986, the Agency decided on a "conceptual redesign" of the residue program, intended to enhance its effectiveness in preventing residues -- its major objective.

Since its 1967 inception, the focus of the National Residue Program has been to prevent illegal residues of drugs, pesticides, and environmental contaminants in meat and poultry. The Agency has sought to meet this objective primarily through a statistical sampling and testing program that monitors trends and identifies problem areas; cooperative agreements with producers; and

educational efforts, in cooperation with USDA's Extension Service.

The residue program has been very effective, and the laboratory turnaround time has been excellent. However, documentation and reflective, long-term planning for greater effectiveness have often been superseded by the need to deal with residue emergencies or problems.

In 1985, the Agency began reevaluating its residue program in light of a new interagency agreement on residue control, the recommendations of the National Academy of Sciences, and past experience. In 1986, a routine audit report by USDA's Office of the Inspector General recommended improvements in data collection, analysis, and reporting; as well as better coordination with other agencies that protect the food supply.

Beginning in 1987, the redesigned residue program will be implemented. In a major change, the responsibility for carrying out and supervising the execution of sampling plans will be shifted from the Science program to the field -- Meat and Poultry Inspection Operations and International Programs.

This change will vest authority and responsibility in the same supervisory structure. It will also free residue staff to focus on planning, data analysis, and publication of data.

In 1986, FSIS issued its third annual residue plan, including compound evaluations and a summary of the Agency's analytical capabilities for residues.

Cooperative residue agreements. In 1986, FSIS continued its successful cooperative residue agreements with 9 "vertically integrated" industries. About 50 percent of broilers, 30 percent of turkeys, and 3 percent of fed cattle are now slaughtered under these agreements.

Under the agreements, companies must document that they can control all facets of production -- thereby preventing illegal residues. FSIS monitors and verifies that controls are being implemented effectively.

Residues in bob veal calves. FSIS has implemented revisions in residue testing procedures for young veal calves -- in order to focus greater attention on animals and slaughter plants where problems are most likely to occur. The change will enable USDA to increase residue testing at plants with high violation rates, and to decrease testing at plants that consistently handle young calves free of sulfa and antibiotic residues.

Under the successful program begun in 1984, owners of bob veal calves may certify in writing that their calves were not treated with drugs, or (if treated) that the prescribed withdrawal period was followed. Uncertified calves are tested at a higher rate than certified calves.

Since the program began, overall residue violations in bob veal calves have been reduced from 5 percent to less than 2 percent. However, while the violative rate for bob veal calves at some plants has been less than one-half of 1 percent, it has been as high as 9 percent at other plants. The revised program will help combat the persistently high violation rates in certain plants.

Bob veal calves are up to 3 weeks old or 150 pounds. Their meat is used in processed products, and is not the source of "fancy" veal in chops and roasts. The certification program relies on an FSIS-developed, overnight quick test, the Calf Antibiotic and Sulfa Test (CAST).

Heptachlor contamination. In 1986, FSIS initiated a special sampling program for heptachlor and chlordane in meat and poultry from suspect herds and flocks after FDA discovered the pesticide in milk from dairy herds in Arkansas and surrounding States.

FDA's routine testing of animal feed for aflatoxin detected the pesticide and led to intensive investigations.

The incident was economically painful for many dairy farmers, may cost taxpayers as much as \$10 million for indemnities to dairy farmers, and has led to the indictments of four former gasahol plant operators.

FSIS established an on-site field office at the height of the incident and instituted extensive testing for commercial meat products and products destined for the school lunch program. No school lunch products were contaminated, and the Agency concluded that there was no widespread contamination of the meat supply.

However, as a precautionary measure, FSIS also initiated special "hold and test" procedures for suspect animals.

At the end of fiscal year 1986, only 35 violations from several livestock sources had been confirmed out of almost 1,800 samples on which testing had been completed.

Under the special program -- which FSIS will continue as long as it is necessary to prevent adulterated meat from entering the food supply -- suspect animals are tested at slaughter for heptachlor. They are held until test results are completed.

The heptachlor contamination also stimulated the agencies that protect the food supply to take a closer look at the potential for future contamination of the food supply from pesticide-treated seed in animal feed.

FSIS sponsored a public meeting on treated seed in July 1986 to assess the apparent magnitude of the problem and to develop preliminary recommendations for preventing treated seed in animal feed.

An interagency task force, chaired by an FDA official, presented its report indicating some violations and some apparent confusion.

About 75 persons attended the public meeting and participated in shaping four preliminary recommendations, including one for an animal identification system to ease the problem of tracing the source when residue violations occur.

The public meeting also recommended establishment of a task force on the identification of treated seed; encouraged EPA's evaluation of captan along with education of farmers and the seed industry on proper detreatment; and recommended strengthened support for the Residue Avoidance Program (RAP) and the Food Animal Residue Avoidance Database (FARAD).

USDA, FDA, and EPA officials are currently considering these recommendations, comments received, and other available information, in order to determine appropriate further action on the treated seed problem.

In addition, FSIS is participating with FDA, EPA, and other USDA agencies in educational efforts. For example, in the spring of 1986, FSIS developed a special alert on treated seed for animal producers, which was disseminated by the Extension Service to its State directors.

Special testing program in Puerto Rico. In May 1986, after transmitting the report to Puerto Rican authorities, USDA announced final results of a special 8-month residue testing program of Puerto Rican meat and poultry.

Intensive tests on 693 samples of Puerto Rico's meat and poultry supply turned up no trace of diethylstilbestrol (DES) or zeranol. The two animal growth promotants had been blamed as a possible cause of abnormal early sexual development -- commonly known as premature thelarche -- among Puerto Rican children.

The samples were also tested for other types of residues, including antibiotics and pesticides. More than 6,500 analyses were performed, and

only 16 violations were found -- not significant or unusual.

USDA's report followed a March FDA report on its own study, which revealed no unapproved drugs in use nor importation of unapproved drugs from foreign countries.

International cooperation. In 1986, FSIS continued its residue prevention efforts in the international arena. FSIS representatives participated in the first meeting of the Committee on Residues of Veterinary Drugs in Food of the Codex Alimentarius Commission. About 175 representatives from 40 countries and 10 international organizations attended the week-long meeting.

A major accomplishment of the meeting was development of a "priority list" of commonly used animal drugs that should be reviewed by international experts as a step toward international agreement on the safety of residues from the drugs in food products.

The Codex Alimentarius Commission is an international body that works toward the adoption of common international food standards to protect consumers and promote fair trade. It is supported by the World Health Organization, the Food and Agriculture Organization, and participating nations.

Innovations in Import Inspection

For several years, FSIS has steadily strengthened its import inspection function. In 1985, for example, import inspection was recognized as a distinct function. The supervisory structure was clarified and strengthened by reassigning import inspectors from Meat and Poultry Inspection Operations to International Programs. In 1986, the agency continued to build on earlier improvements.

Halting inspection at unofficial sites. In March, FSIS stopped

providing import inspection services at piers, warehouses, or other facilities not specifically approved for inspection.

This practice, while convenient for importers, undermined the inspector's ability to enforce requirements. It also resulted in greater expenditures in personnel time and travel costs that could not be reimbursed, since the inspection sites were unofficial.

Destination inspection. In 1986, the Agency began phasing out destination inspection-- inspecting products at destination sites rather than at ports of entry.

Destination inspection for products from Canada will be permitted until 1989, because border facilities are inadequate to handle the large volume of products imported from Canada. About 80 percent of imports inspected at destination sites come from Canada. FSIS is also exploring the feasibility of joint border inspection with Canada.

Stamping procedures. In 1986, FSIS implemented a combination of stamping procedures recommended by the U.S. General Accounting Office several years ago.

In March, USDA inspectors began marking shipping containers of rejected containers with an indelible, permanent "U.S. Refused Entry" stamp. This small change forewarns other countries -- particularly in Caribbean countries with less developed inspection systems -- that the rejected meat and poultry does not meet U.S. standards.

In 1986, FSIS also began to allow prestamping of some imported products before inspection is completed. Prestamping with the mark of inspection will be considered only for plants with a good compliance history, and only for lots that will be inspected on the same day. Prestamping will be permitted only if lots have been staged and checked for

general condition and proper certification.

Radiation monitoring. Finally, in the wake of the Soviet nuclear accident at Chernobyl, FSIS began port-of-entry radiation monitoring for meat and poultry imports from affected countries. No significant increase in radiation in imported products has been detected.

This monitoring is in addition to foreign country controls. FSIS notified all nations which export meat and poultry products to the United States that they must institute controls to prevent radiation contamination if high ground levels of radiation were detected in their countries.

Enhancing Export Opportunities

EEC. In 1986, FSIS continued technical assistance programs to help plants meet requirements of the Third Country Directive. In 1986, teams of veterinarians from European Economic Community (EEC) member nations reviewed U.S. plants to determine their compliance with the Directive, which sets technical requirements for plants exporting to EEC countries.

FSIS believes that the EEC's requirements are not justified, since the changes would make little difference in the safety, wholesomeness, or quality of final products.

Late in 1986, FSIS received further information from the EEC about the conditions under which identified USDA-inspected establishments would be permitted to continue exporting to Europe.

The plants fall into two groups -- those that have remedied specific deficiencies identified by the EEC veterinarians, and those that can provide USDA with a plan on how they will remedy the problems. Plants not in one of these two groups are

scheduled to lose their export eligibility on April 29, 1987.

The U.S. Trade Representative has clearly identified the Third Country Directive as a trade issue, and has made a commitment to firm action whenever actual trade deprivations occur.

Hormone ban. In a related matter, the EEC has approved by majority vote a full ban on all growth hormones in livestock, with the ban to take effect in 1988.

The United States was officially notified of the upcoming ban in mid-1986 and was asked to present the EEC with information on residue control programs in the United States -- and specifically what steps would be taken to assure that meat exports to EEC member countries did not originate from animals treated with growth promoting hormones as of January 1, 1988.

FSIS was asked to coordinate USDA's response to the ban, which could mean the loss of an \$80 million export market (mostly in variety meats).

The U.S. position is that this is a trade issue and not a food safety issue. The Food and Drug Administration has determined that the naturally occurring and synthetic hormones approved for animal use in the United States are safe when used according to label directions. The hormones have undergone rigorous scientific review in this and other countries. An expert group of scientists affiliated with the Codex Alimentarius Commission's Committee on Residues of Veterinary Drugs in Food will also be reviewing safety data in upcoming months.

In January 1987, a U.S. delegation traveled to Brussels and presented detailed information to the EEC on U.S. drug approvals, Federal regulation, and residue controls. The delegation urged the EEC to accept those controls as evidence of the

safety of meat exports to Europe. An official response has not yet been received.

Additional actions in response to the hormone ban are being taken by the Office of the U.S. Trade Representative.

Export certificates. In 1986, FSIS adopted revised procedures for processing export certificates of meat to ensure timely departure of vessels carrying the meat.

The new procedures will allow a vessel to depart after the shipper, shipper's agent, or vessel's agent provides a signed statement to the U.S. Customs Service that briefly describes the exported product and includes the export certificate number. The statement must be filed within 4 days after the vessel leaves port, which is consistent with Customs Service requirements for export declarations.

Enforcement

The 1986 passage of the Processed Products Inspection Improvement Act (PPIIA) will strengthen the Agency's enforcement capabilities.

Not only will it allow for discretionary processing inspection; it will also give USDA additional authority to withdraw inspection or suspend a responsible official for convictions of misdemeanors and felonies, and for repeated failures to comply with the Federal Meat Inspection Act. The PPIIA also permits temporary withdrawal of inspection when the safety of USDA employees is at stake.

These changes respond to USDA legislative amendments frequently submitted to Congress in the past, and also speak to recommendations of the 1986 review of the inspection program by USDA's Office of the Inspector General.

Under current law, FSIS has several other tools -- apart from criminal prosecution if the Justice Department pursues this option -- to prevent distribution of meat and poultry products that violate the inspection laws.

The Intensified Regulatory Enforcement program, now in its fourth year, recognizes that a small number of plants cannot or will not operate within acceptable bounds that assure safe and wholesome meat and poultry products.

If a plant continues to be deficient in its operations despite intensive efforts by the supervisory inspection team, involuntary withdrawal of inspection can be considered. At the end of fiscal year 1986, 10 plants were operating under intensified regulatory enforcement.

Table 9 summarizes other enforcement actions taken during fiscal year 1986.

Major violations of Federal inspection regulations can result in criminal prosecutions and court-imposed sanctions against firms, their owners, and their officers.

In a significant 1986 case, a Utah company was ordered to pay fines and restitution totaling about \$871,000, after admitting that its employees had replaced meat with water in turkey products destined for the school lunch program. One company official was fined \$5,000 and sentenced to a 6-month prison sentence.

Company officials entered a plea bargain agreement with the Justice Department, admitting to economic adulteration and theft of Government property. Product donated by the Government for the school lunch program was diverted to commercial processing; in addition, a chlorine solution was added to make tainted or questionable products appear fresher.

USDA's Office of the Inspector General, FSIS Compliance Officers, and agents of the Federal Bureau of Investigation investigated the case.

In 1986, one official of a New York meat company was fined \$10,000 and sentenced to 6 months in prison. A second official was also fined \$10,000 and placed on probation for 2 years. The sentencing stemmed from the transportation and sale of adulterated meat prepared under insanitary conditions in 1983 and 1984.

Unfortunately, five FSIS inspectors and a supervisor were also indicted in 1986, on 33 counts of accepting bribes to influence their inspection decisions. Two plant officials have pleaded guilty to bribing inspectors to accept specially prepared samples of meat products.

Recalls. Voluntary company recalls are occasionally requested when products already in the marketplace are determined to pose potential health and safety risks to consumers. If companies did not comply with FSIS requests, the Agency would be compelled to pursue stronger enforcement mechanisms.

For example, in fiscal year 1986, an Arkansas company voluntarily recalled turkey hams distributed in six States because the hams could have contained metal or wood fragments. No complaints of illness or injury associated with the product had been received when the recall was issued.

A California food company recalled institutional-size cans of ravioli distributed in five States because of possible contamination with food spoilage organisms.

A Pennsylvania company recalled imported canned hams distributed in five States because of possible food spoilage organisms.

Southern California review. In the spring of 1986, the Agency released a report on a progress assessment of the

special initiative undertaken in the administration of the inspection program in Southern California to remedy deficiencies uncovered during the 1985 review.

Inplant reviews, document examinations, onsite observations, and interviews with inspection personnel showed a significant improvement in both program administration and inspection controls. The areawide review results for inspection critical control points were consistent with, or exceeded, those of other areas.

Advisory Committee on Meat and Poultry Inspection

USDA's Meat and Poultry Inspection Advisory Committee held a 2-day meeting in June to discuss several inspection topics:

- the modernization of the inspection program;
- an evaluation of the role of microbiological criteria for food and food ingredients;
- the status of the Agency's actions on "lite" and "lean" labeling;
- an update on the Agency's international programs activities;
- a report on the oversight of custom operations;
- a review of the oversight and certification of State meat inspection programs.

As required by law, the advisory committee counsels FSIS on matters affecting meat and poultry inspection programs. The members of the committee, appointed by the Secretary, represent scientific and public health organizations, Federal and State Government agencies, academic circles, and various private interest and trade groups.

Labeling Issues

Lite and lean. In March 1986, FSIS announced new labeling requirements for fat claims on meat and poultry

product labels. Processors will have 1 year to change their labels to conform with the new requirements.

The requirements respond to petitions from a consumer group and a trade association. The requirements seek to ensure labeling that more accurately reflects a product's fat content without discouraging the industry from producing lower fat products.

Under the new labeling policies, terms used on labeling will reflect the percentage of fat in the finished product; in addition, labels must carry explanatory statements about the claim.

- "Extra lean" can be used only on products containing no more than 5 percent fat; and the percentage must be listed.

- "Lean" and "low fat" can be used only on products containing less than 10 percent fat; the amount of fat must be stated.

- "Light," "lite," "leaner," and "lower fat" can be used on products containing at least 25 percent less fat than the majority of such products in the marketplace. However, a label statement must explain the meaning of the comparison.

Sodium. For several years, USDA has encouraged voluntary sodium labeling, consumer education, sodium research, and sodium monitoring. This four-point program is directed at encouraging industry to produce a greater variety of low or reduced sodium products that could help consumers lower their sodium intake.

Based on a review of the data from more than 3 years of the sodium monitoring program, none of the nine product classes showed prominent trends over time with respect to sodium, potassium, or salt content. As a result, USDA has decided to design a less intensive, less costly monitoring system for future use.

Sulfite labeling. Beginning July 9, 1987, consistent labeling requirements will apply to all foods containing sulfiting agents (sulfites).

The FSIS policy for meat and poultry products will require meat and poultry processors to list sulfiting agents on product labels when the products contain confirmable levels of the substances.

The policy, announced in January 1987, is consistent with FDA's policy, which requires sulfite labeling when products contain 10 parts per million of the preservative.

Sulfiting agents include sulfur dioxide, sodium sulfite, sodium bisulfite, potassium bisulfite, sodium metabisulfite, and potassium metabisulfite. These sulfites are used to preserve potatoes and other ingredients that may be added to processed meat and poultry products.

Acidic substances on fresh pork. In September 1986, FSIS implemented an interim final rule that permits the controlled use of substances that maintain the color of fresh pork cuts (without masking spoilage) for the duration of their normal, safe shelf-life. The substances, earlier approved by FDA, are ascorbic acid, erythorbic acid, citric acid, sodium ascorbate, and sodium citrate.

Processors must label their products to identify the added substances and the reasons for their use; for example, "sprayed with a solution of water, ascorbic acid and citric acid to maintain color."

The maximum permitted levels of the substances in fresh pork are in the parts per million range. In addition, only processors operating under a USDA-approved partial quality control program will be allowed to use the substances.

USDA may approve the use of FDA-approved substances in meat and poultry products without further rulemaking. However, because this is a new method of color maintenance, the Agency is implementing it on an interim basis.

Commercial experience and public comments (accepted through December 22, 1986) will help determine if the approval should be finalized.

Binders in restructured meat products. In September 1986, in response to a petition by a university research foundation, FSIS implemented a regulation allowing the use of a combination of dry substances as a binder for restructured meat products.

The use of the binder must be indicated in the product name; for example, "Beef--chopped, shaped and formed; sodium alginate, lactic acid, calcium lactate and calcium carbonate added as a binder."

When these compounds are added to raw meat, they react to form calcium alginate -- which binds together the flaked, sectioned, or chunked meat. Restructured meats can be shaped into nuggets, roasts, loaves, steaks, and other forms.

The substances in the binder are listed by FDA as "generally recognized as safe" (GRAS).

Education and Information

Consumer education. Since 1972, FSIS has conducted a comprehensive program to educate consumers about food safety. Consumer education has been identified as a "critical control point" in preventing foodborne illness by the 1985 National Academy of Sciences report and the 1984 International Symposium on Salmonella.

Every year, FSIS reaches millions of consumers with food safety information through a variety of public

information mechanisms -- publications, the Meat and Poultry Hotline, press releases and other media contacts, radio and television public service announcements, and responses to correspondence.

In 1986, for example, 2.7 million copies of the Agency's consumer publications were distributed.

The most requested publications were The Safe Food Book and Talking About Turkey, and a new pamphlet, Safe Food To Go. In addition, about 2,000 subscribers received USDA's food safety magazine, Food News for Consumers.

The Agency also conducts educational campaigns such as the the Food Safety Poster Contest. Over a 6-year period, this contest reached hundreds of thousands of elementary schoolchildren at a "teachable moment" for food safety education.

The Agency is now planning another youth-directed campaign that will reach junior high students through their home economics, science, and health teachers.

These efforts, while successful, have been directed primarily at mainstream consumer audiences. The Agency is now developing a program to reach other consumer audiences, such as those who have limited reading skills or a limited understanding of English.

The Agency's Meat and Poultry Hotline has been toll free only since July 1985, and in that period has responded to more than 50,000 calls.

The effectiveness of the hotline in educating and informing consumers and others is shown in the number of calls and letters received, the type of caller, and the type of question.

About 30,000 inquiries were handled during business hours by hotline staffers. After-hours callers received help through taped seasonal food safety messages.

Most 1986 calls -- 86 percent -- were from consumers. Most calls -- 68 percent -- were requests for basic information on the safe handling, preparation, and storage of meat and poultry.

In addition to the direct food safety information it provides to consumers, the Hotline's computerized system detects trends that help identify the need for larger educational efforts.

For example, the calls generated by Hurricane Gloria (1985) signaled a need for an inexpensive factsheet to explain how to handle food safely after power outages.

Institutional food handlers. In addition to consumer education efforts, the Agency is producing a training package for use by institutional food preparers. Hospitals and nursing homes will be the initial target audiences.

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